ବିକଶିତ ଓଡିଶା, ବିକଶିତ ଭାରତ

ODISHA
ECONOMIC SURVEY
2023-24

DIRECTORATE OF ECONOMICS & STATISTICS, PLANNING & CONVERGENCE DEPARTMENT, GOVERNMENT OF ODISHA

Odisha Economic Survey

2023-24

July 2024

Directorate of Economics and Statistics
Planning and Convergence Department

Government of Odisha

Odisha Economic Survey

2023-24

July 2024

The Odisha Economic Survey, 2023-24 has been uploaded on https://odisha.neva.gov.in for circulation among Hon'ble Members of the Legislative Assembly on 24th July, 2024. The whole document is available in the website of Planning & Convergence Department at https://pc.odisha.gov.in/publication/economic-survey-report and in Odisha Budget website at https://budget.odisha.gov.in

Directorate of Economics and Statistics
Planning and Convergence Department

Government of Odisha

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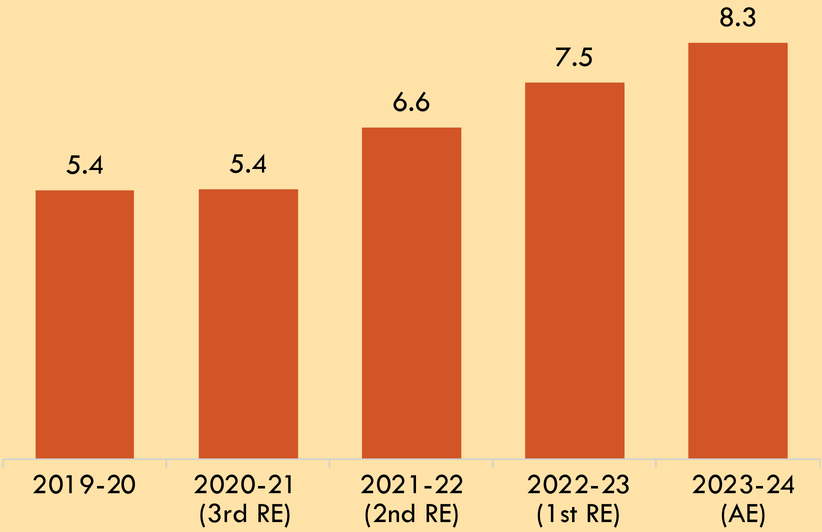
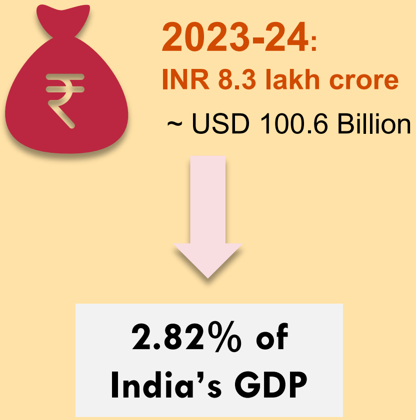
HIGHLIGHTS

GROWTH AND EMPLOYMENT

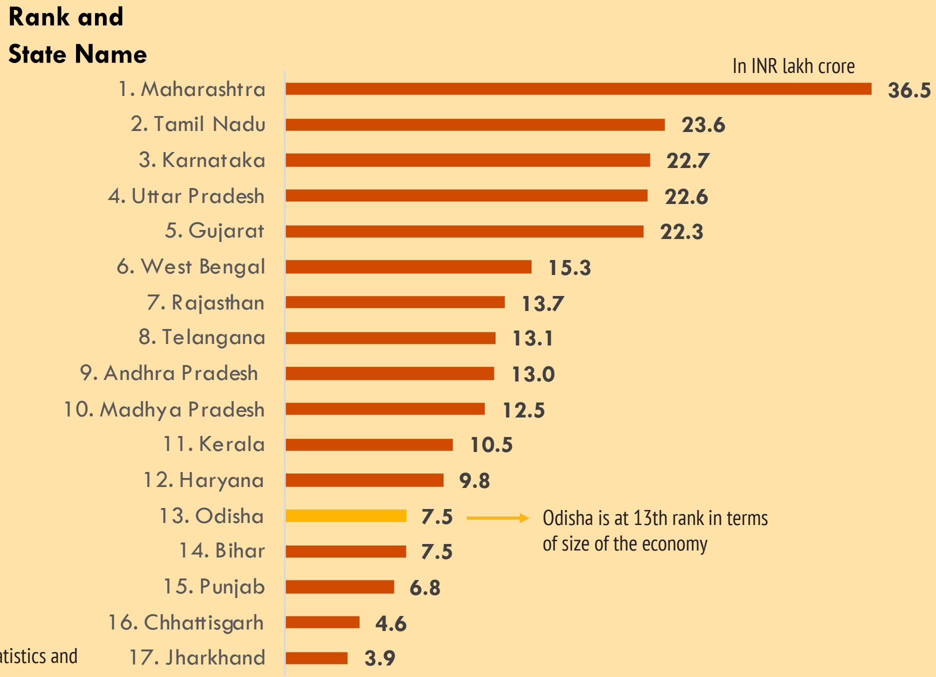
Figure 1 GSDP at current prices (INR Lakh Crore)





Source: Directorate of Economics and Statistics, Government of Odisha; USD exchange rate-Reserve Bank of India.

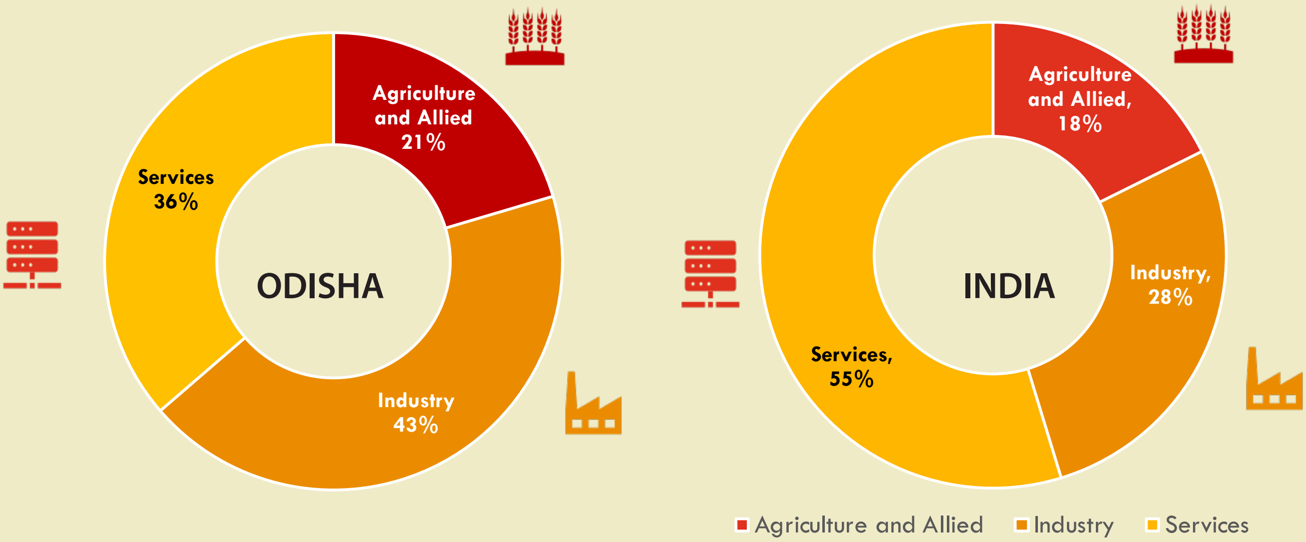
Figure 2 Size of state economies in 2022-23 (GSDP at current prices)



Source: National Accounts Division, Ministry of Statistics and Programme Implementation, Government of India; Economic Survey of Maharashtra, 2023-24.

Figure 3 Contribution of different sectors to G(S)VA* at current prices, 2023-24 (Advance Estimate)

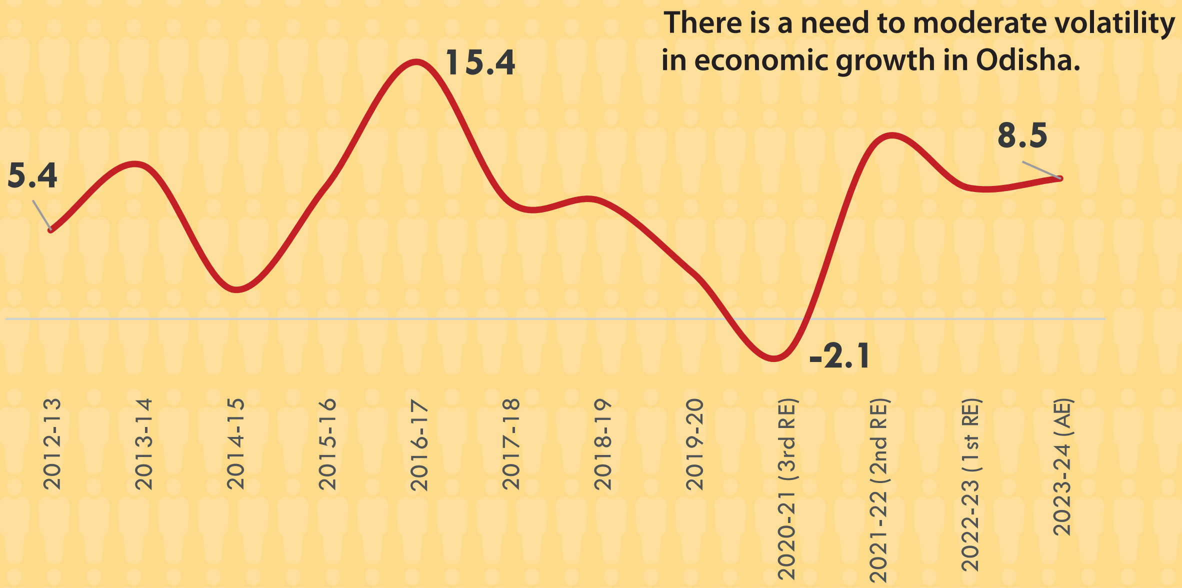
There is a need to increase relative contribution of industry and services while that of agriculture needs to decline.



*Gross State Domestic Product (GSDP) = Gross State Value Added (GSVA) + (Taxes- Subsidies) Note: Numbers are rounded off.

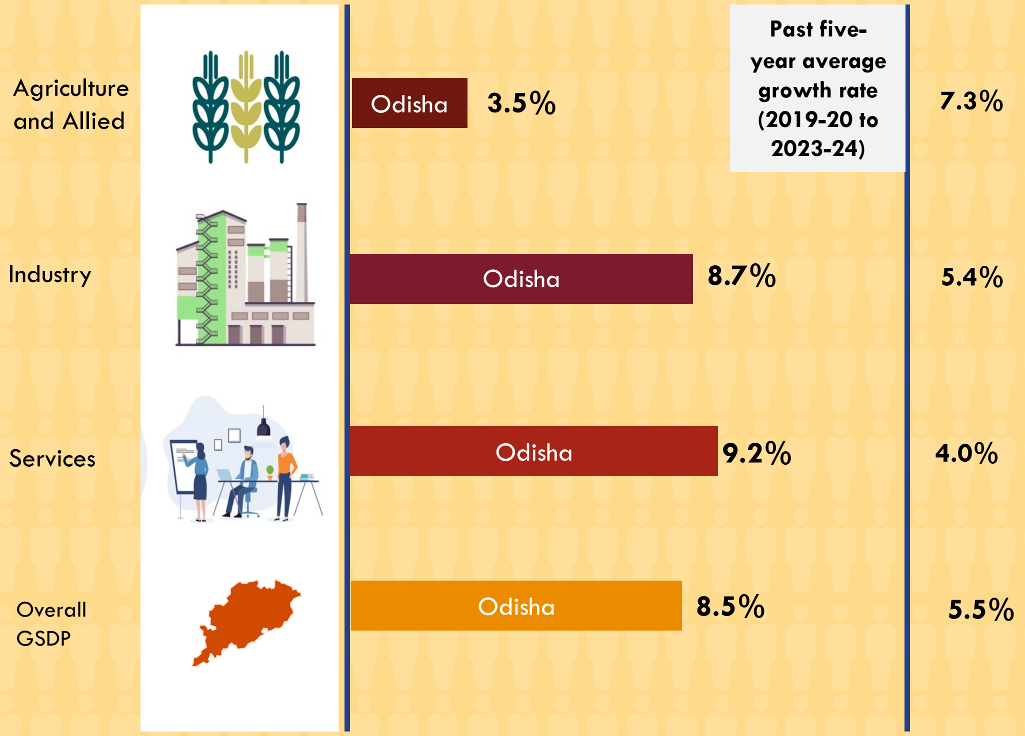
Source: Directorate of Economics and Statistics, Government of Odisha; National Accounts, Ministry of Statistics and Programme Implementation, Government of India
Note: Odisha's GSDP estimates are first advance estimates and India's GDP estimates are provisional estimates.

Figure 4 GSDP Growth Rate (in per cent) in Odisha (at constant prices)



Source: Directorate of Economics and Statistics, Government of Odisha.

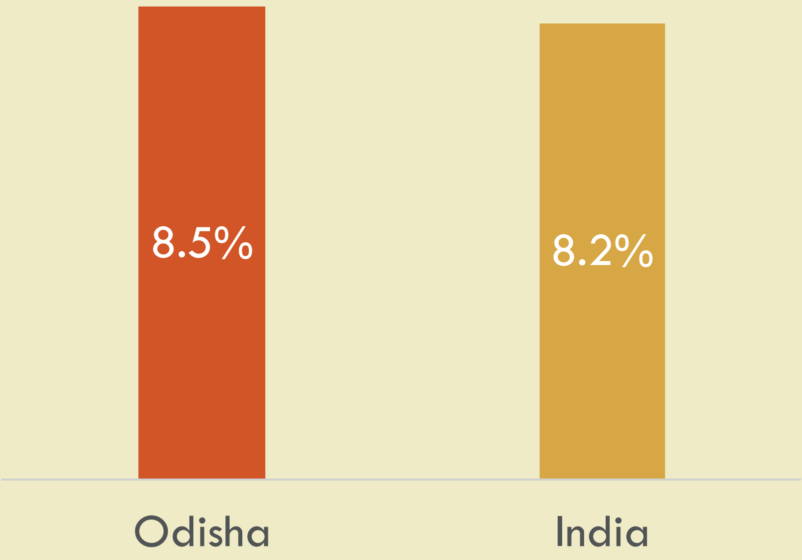
Figure 5 Sector-wise real growth rate in 2023-24 (Advance Estimate)- Odisha



Source: Directorate of Economics and Statistics, Government of Odisha.

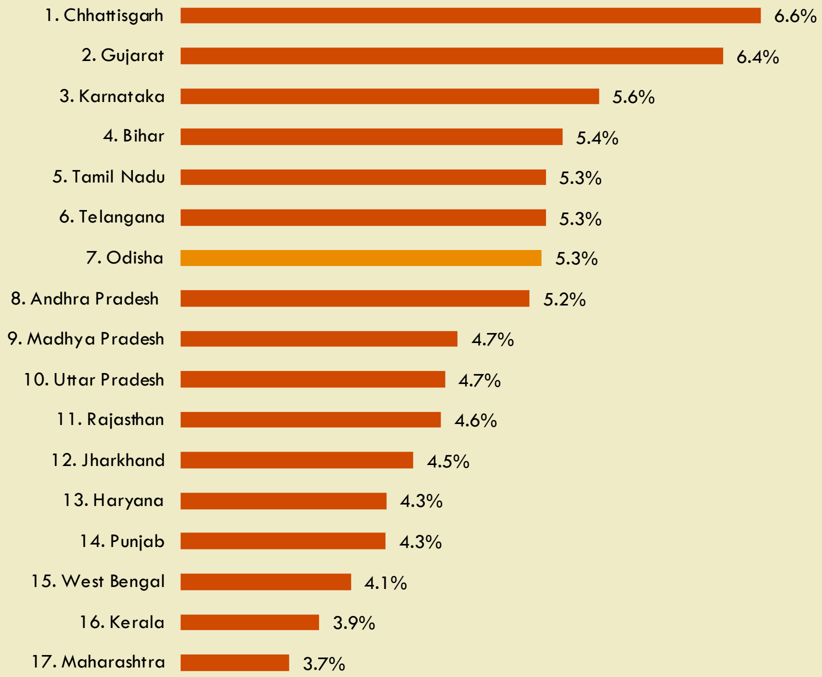
Figure 6 Growth in 2023-24- Odisha and India at constant prices

Odisha grew at similar rate as India in 2023-24



Note: Odisha's GSDP estimates are first advance estimates and India's GDP estimates are provisional estimates.
Source: Directorate of Economics and Statistics, Government of Odisha; National Accounts, Ministry of Statistics and Programme Implementation, Government of India.

Figure 7 State wise Average GSDP Growth at constant prices(2018-19 to 2022-23)



Source: Directorate of Economics and Statistics, GoO; National Accounts, Ministry of Statistics and Programme Implementation, Government of India.

Figure 8

Labour force participation rate (15+ age), 2022-23

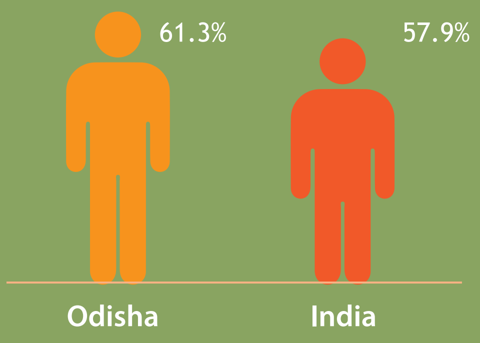
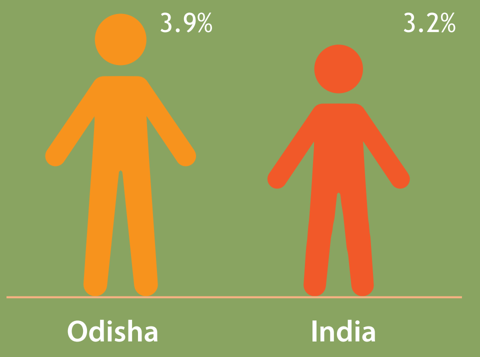


Figure 9

Unemployment rate (15+ age), 2022-23

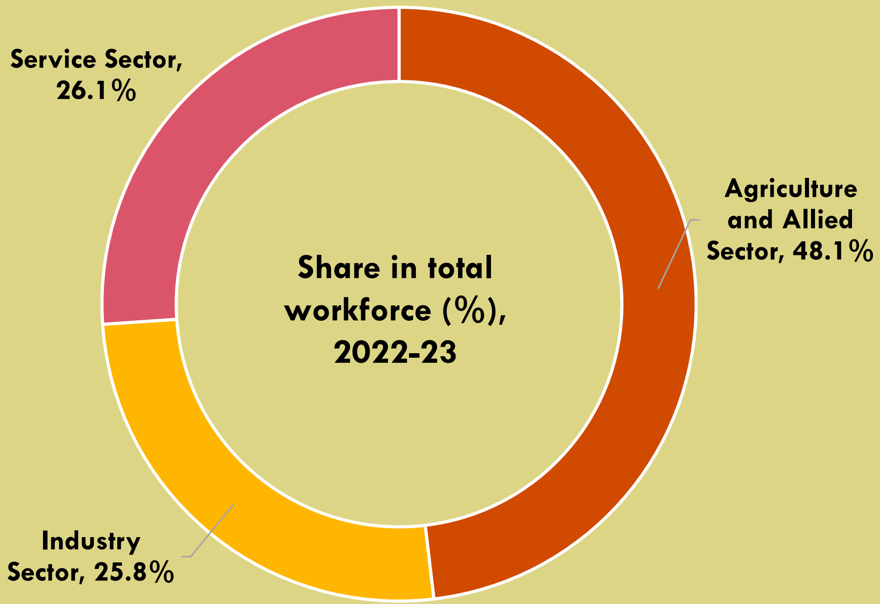


While Odisha's LFPR is more than India, but unemployment rate is also marginally higher in Odisha as compared with India.

Source: Periodic Labour Force Survey (PLFS) 2022-23, Ministry of Statistics and Programme Implementation, Government of India.

Figure 10

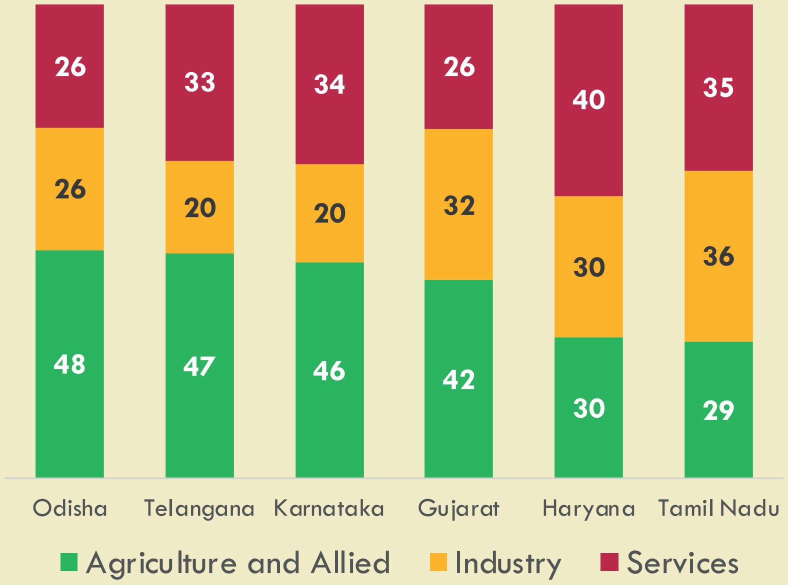
Workforce distribution by key sectors of the economy - Odisha



Source: Periodic Labour Force Survey (PLFS) 2022-23, Ministry of Statistics and Programme Implementation, Government of India.

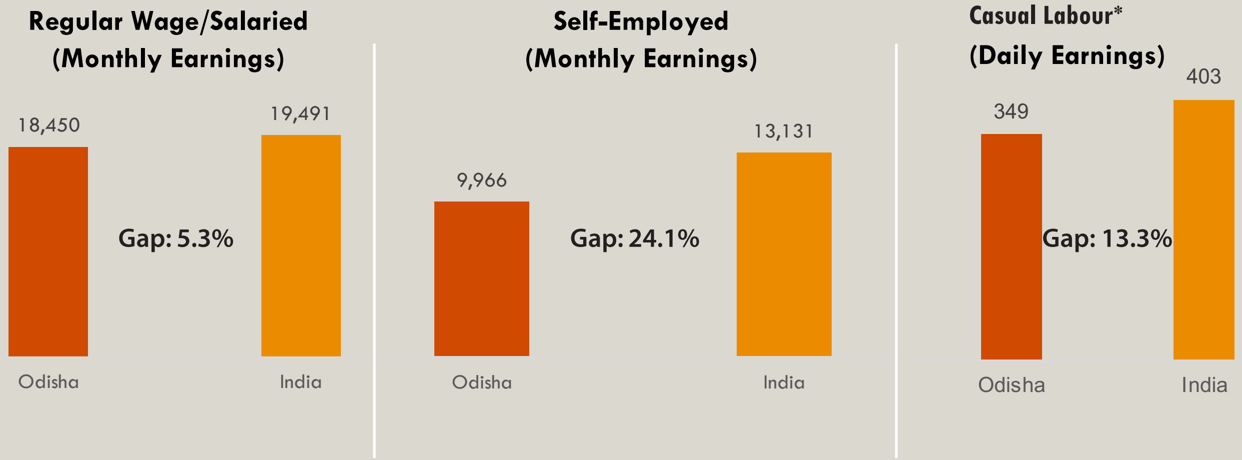
Figure 11 Workforce distribution in Odisha and Top-five per-capita income states, 2022-23 (in per cent)

There is a need to shift workforce towards services and industry



Source: Periodic Labour Force Survey (PLFS) 2022-23, Ministry of Statistics and Programme Implementation, Government of India.

Figure 12 Earnings by type of employment in 2022-23 (Average for July 2022 to June 2023)-(in INR)



Note: *Casual labour other than public works
Source: Periodic Labour Force Survey (PLFS) 2022-23, Ministry of Statistics and Programme Implementation, Government of India.

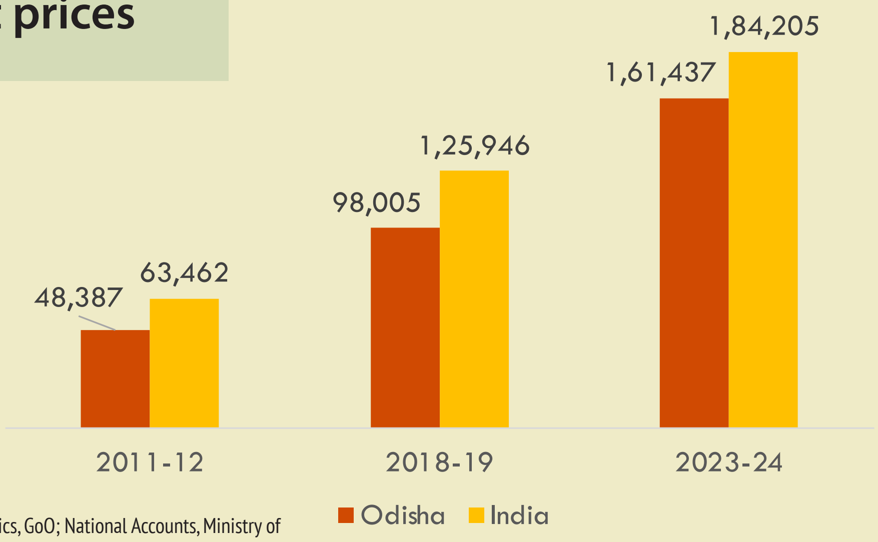
Worker's earnings need to move-up through transition to more productive employment and skill development.

INCOME AND PROSPERITY

Figure 13

Odisha and India's per-capita income (INR), at current prices

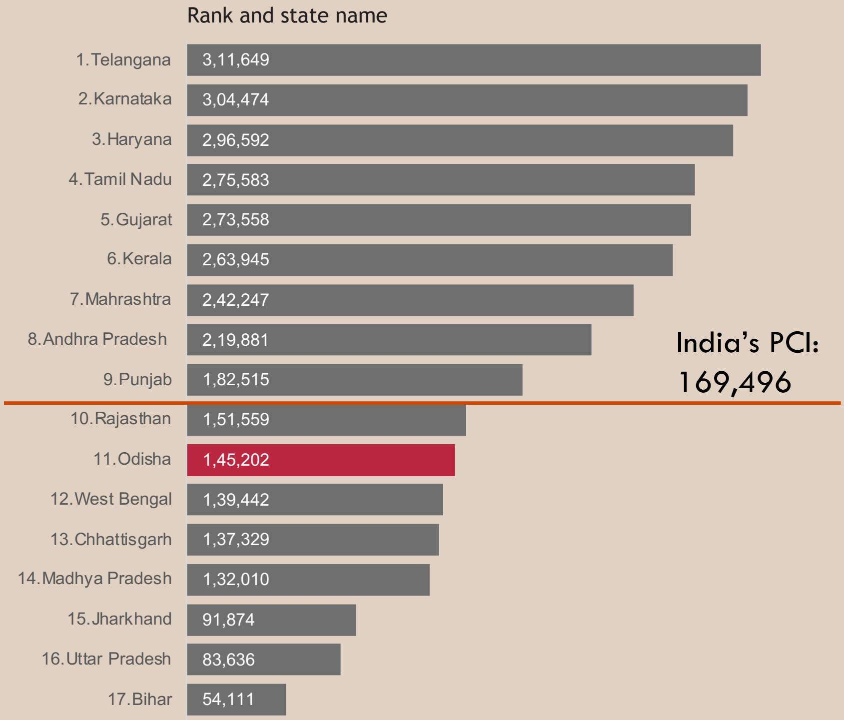
Per capita income (PCI) of Odisha is nearly INR 1.6 lakh as compared to India's INR 1.8 lakh in 2023-24. The gap between per-capita income of Odisha and India was 12% in 2023-24.



Source: Directorate of Economics and Statistics, GoO; National Accounts, Ministry of Statistics and Programme Implementation, Government of India.

Figure 14

Per-capita income of major states, 2022-23 (INR), at current prices

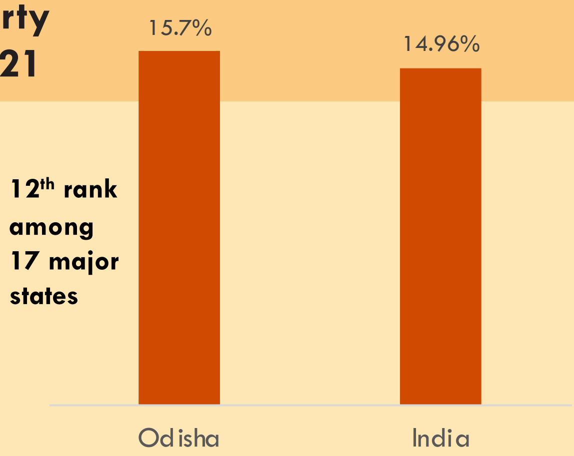


Source: Directorate of Economics and Statistics, Government of Odisha; National Accounts, Ministry of Statistics and Programme Implementation, Government of India.

Figure 15 Multidimensional poverty headcount ratio, 2019-21

(Proportion of multidimensionally poor)

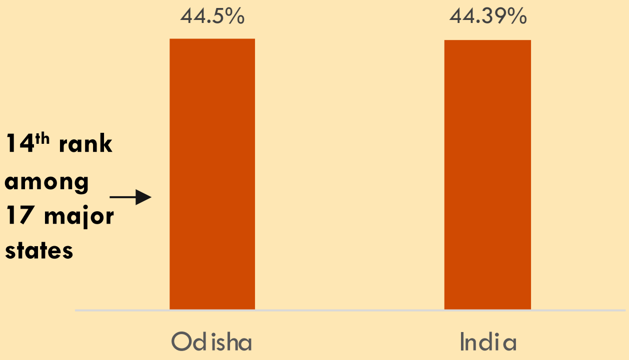
62.6 lakhs people lifted out of multi-dimensional poverty in Odisha between 2015-16 and 2019-21



Source: National Multi-Dimensional Poverty Index, Progress Review 2023, NITI Aayog

Figure 16 Multidimensional poverty Intensity, 2019-21

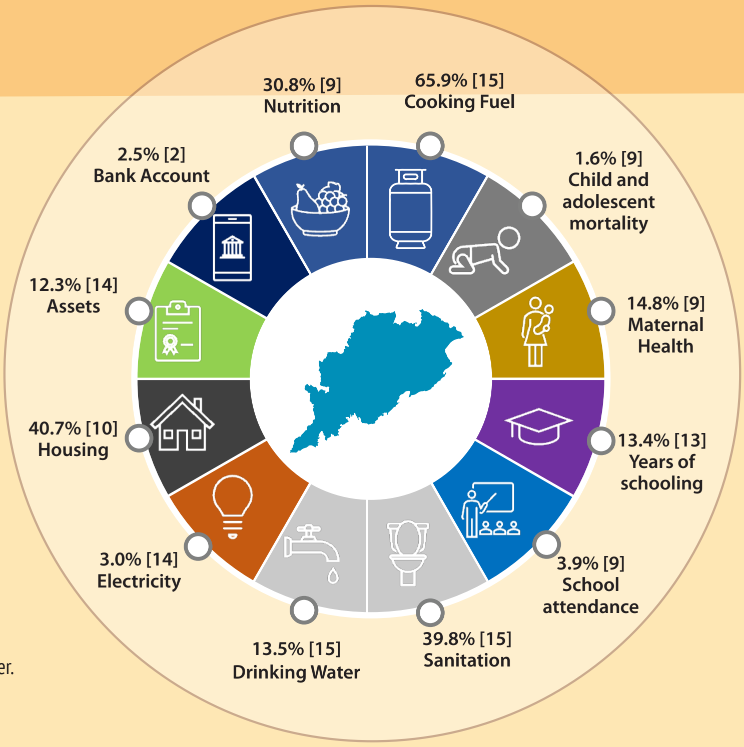
(Average proportion of deprivations which is experienced by multidimensionally poor individuals)



Source: National Multi-Dimensional Poverty Index, Progress Review 2023, NITI Aayog

Figure 17

Proportion of population deprived by components and rank of MPI, Odisha, 2019-21

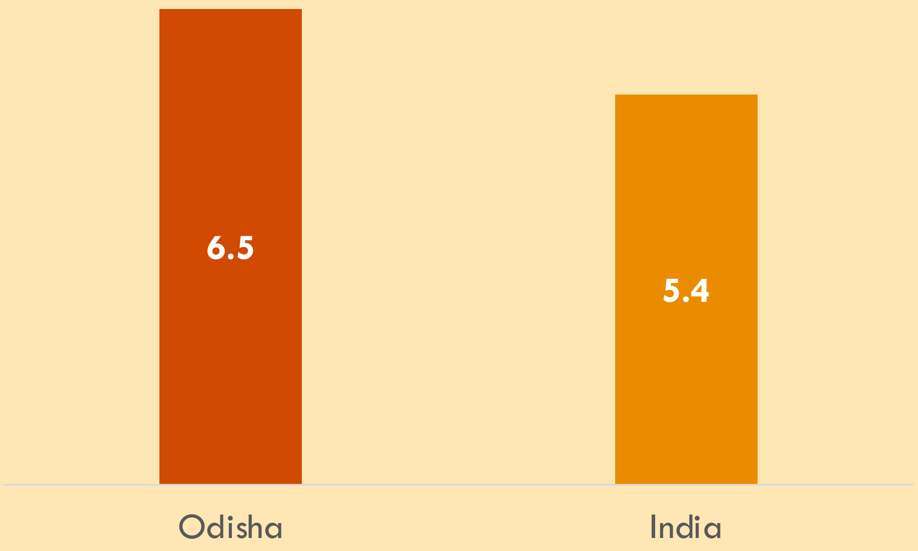


Source: National Multidimensional Poverty Index 2023, Niti Ayog

*Rank among 17 major states is provided in parenthesis in ascending order. For example, in case of 'Nutrition', the rank of Odisha is nine which means eight states have lower level of deprivation in Nutrition than Odisha.

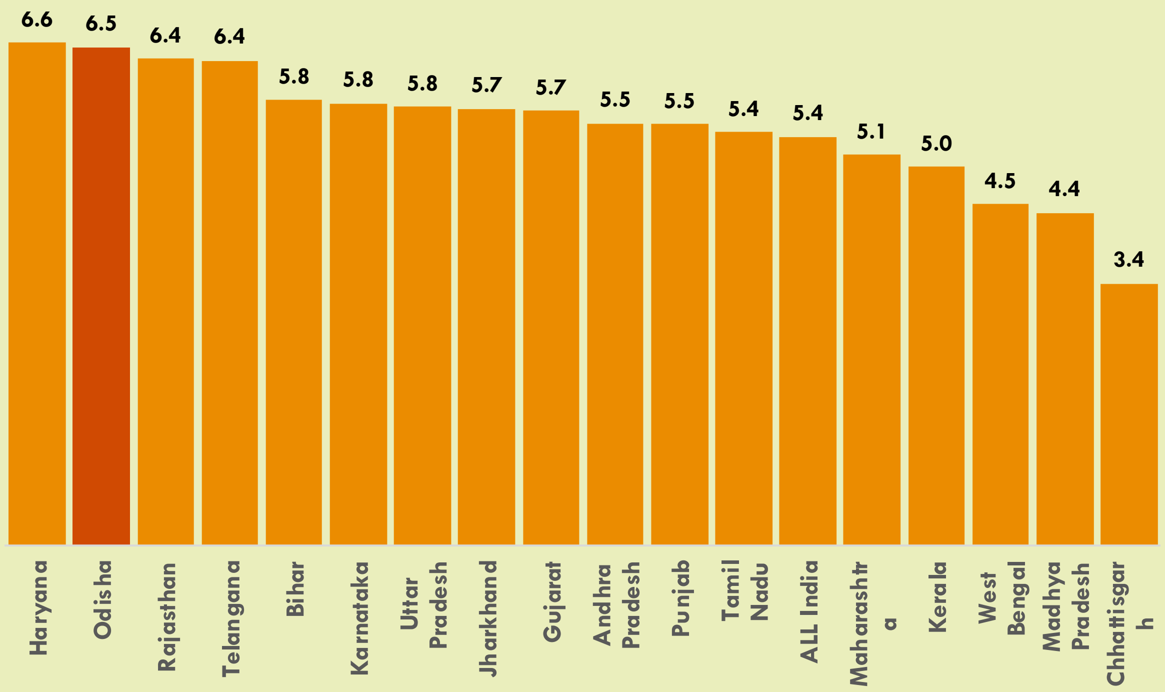
Figure 18 Annual Inflation rate (CPI-Combined), 2023-24 (%)

Inflation in Odisha has remained elevated in 2023-24 as compared to All-India average



Source: CPI Division,Ministry of Statistics and Programme Implementation, Government of India.

Figure 19 State wise inflation rate (CPI-Combined), 2023-24 (%)

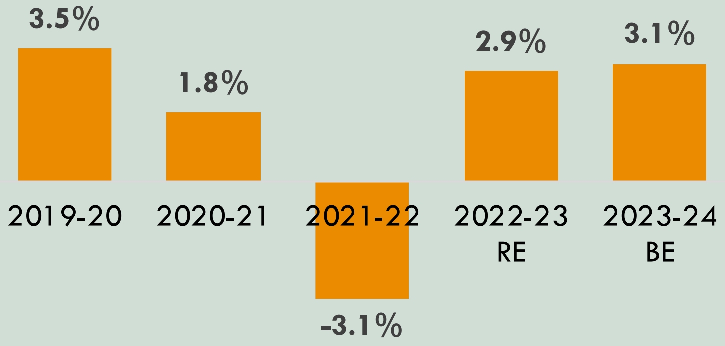


Source: CPI Division, Ministry of Statistics and Programme Implementation, Government of India.

FISCAL MANAGMENT

Figure 20 Fiscal deficit to GSDP - Odisha

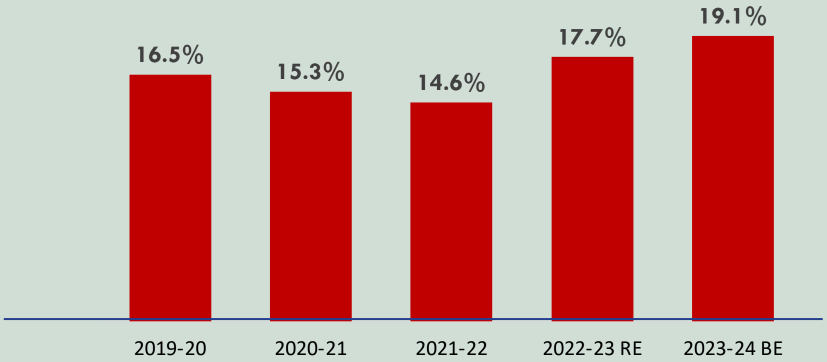
13.6%
Debt stock to GSDP ratio



Source: Annual Budget documents, Odisha; Negative number indicates surplus and positive numbers indicate deficit.

Figure 21 Development expenditure to GSDP

6.2%
Capital Outlay to GSDP ratio

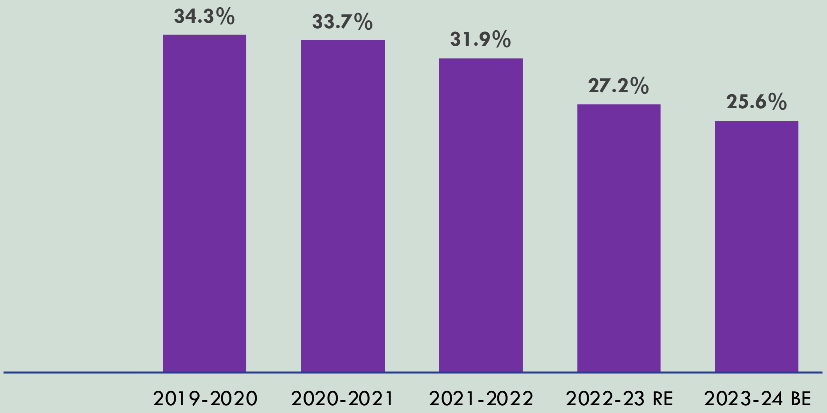


Source: Annual Budget documents, Odisha.

Note: Development expenditure is sum of revenue expenditure and capital outlay on social and economic services.

Figure 22 Committed expenditure - As per cent of total expenditure

3.9%
Interest Payment to Total Revenue Receipts



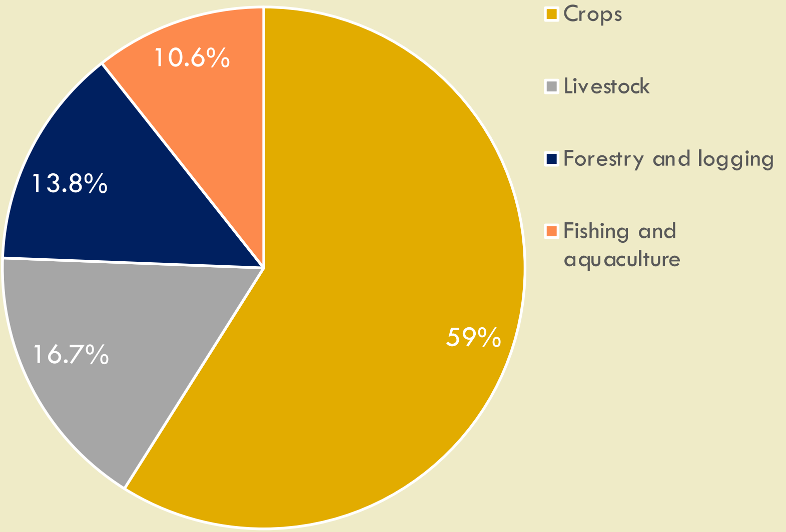
Source: Annual Budget documents, Odisha

Note: Committed expenditure is sum of salary, pension and interest payment. Total expenditure is sum of revenue expenditure and capital disbursements.

AGRICULTURE AND ALLIED SECTORS

Figure 23

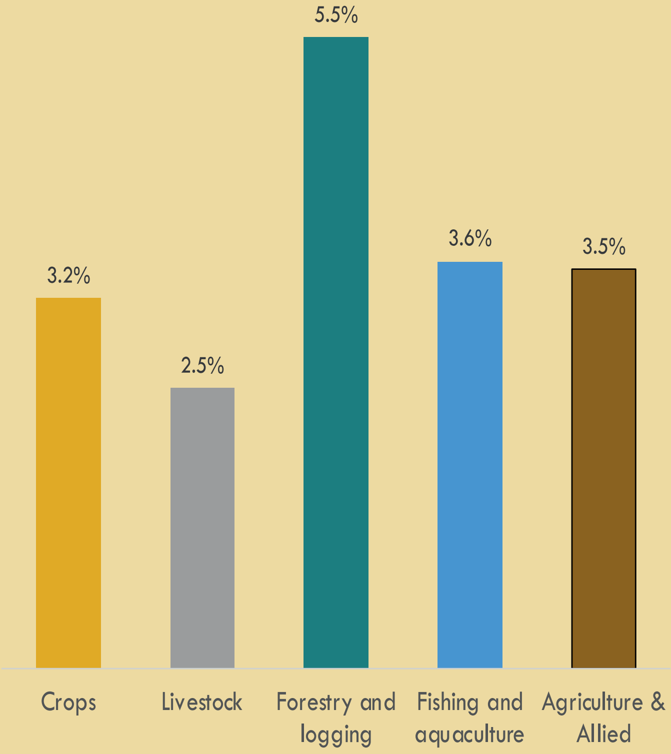
Contribution of sub-sectors in Agriculture and allied sectors GSVA in 2023-24 (Advance Estimate), at current prices-Odisha



Source: Directorate of Economics & Statistics, Government of Odisha

Figure 24

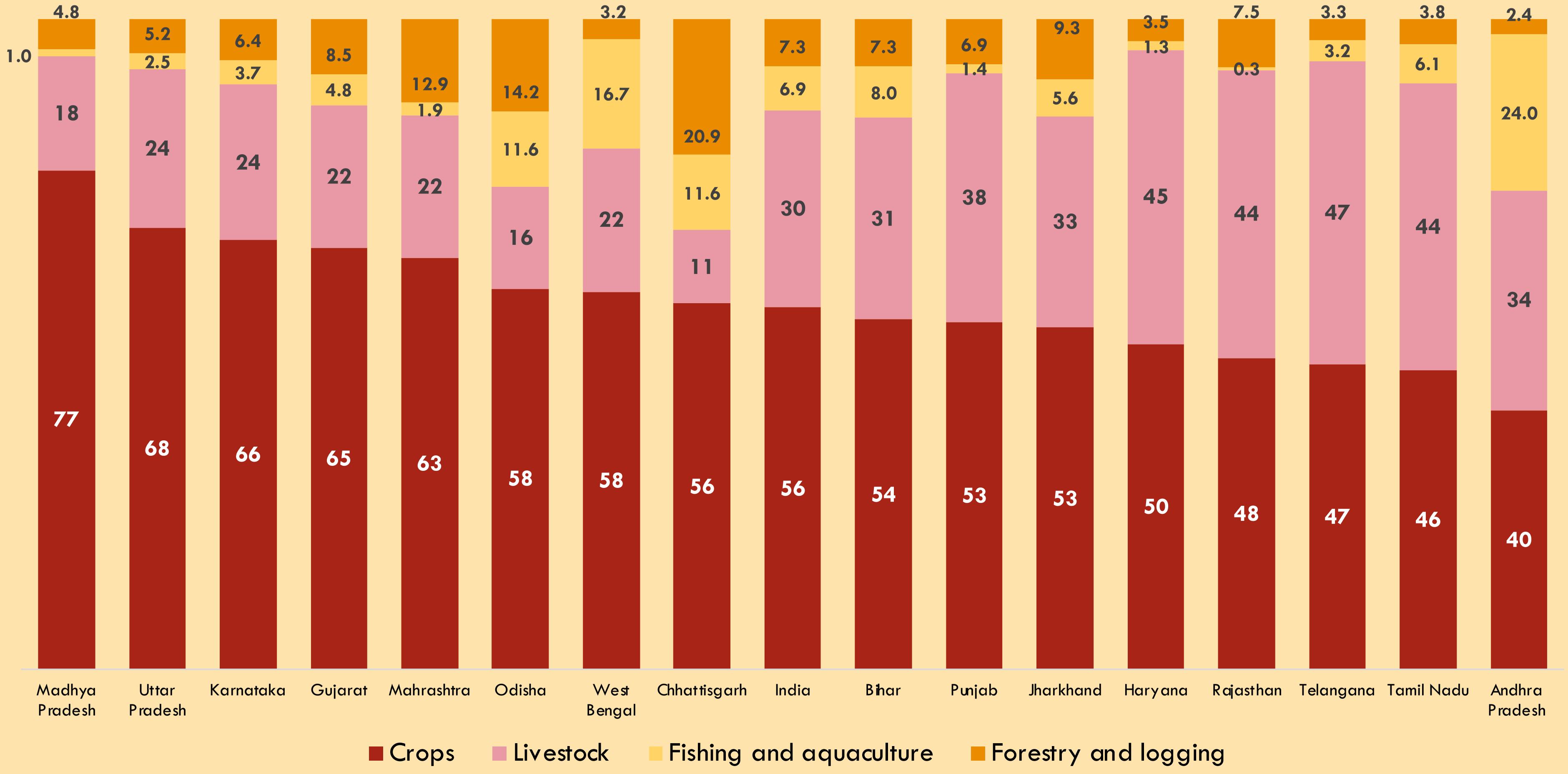
Growth of sub-sectors of agriculture and allied sectors- 2023-24 (Advance Estimate), at constant prices



Source: Directorate of Economics & Statistics, Government of Odisha, Ministry of Statistics and Programme Implementation, Government of India.

Figure 25 **Percentage share of various sub-sectors in agriculture and allied sector GSVA (2021-22)**

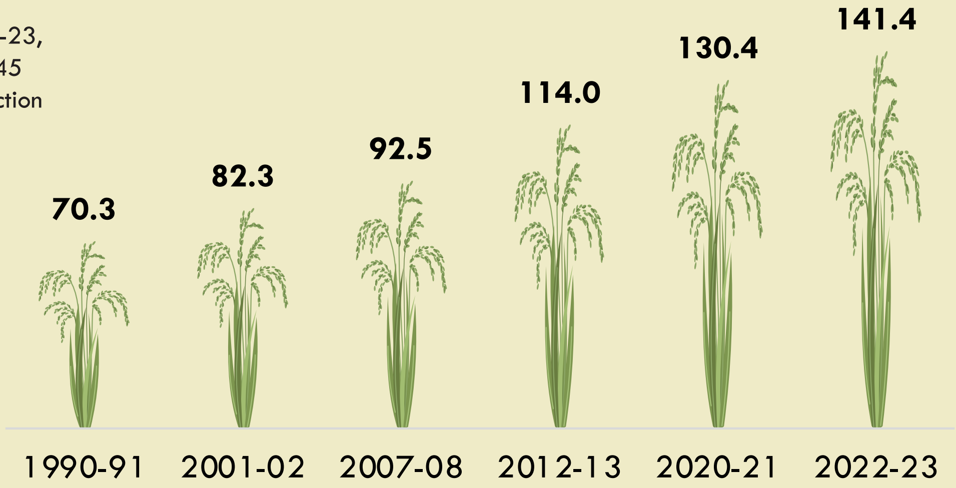
There is a need to diversify towards livestock, horticulture and fisheries.



Source: National Accounts, Ministry of Statistics and Programme Implementation, Government of India.

Figure 26 Foodgrain Production (in Lakh MT)

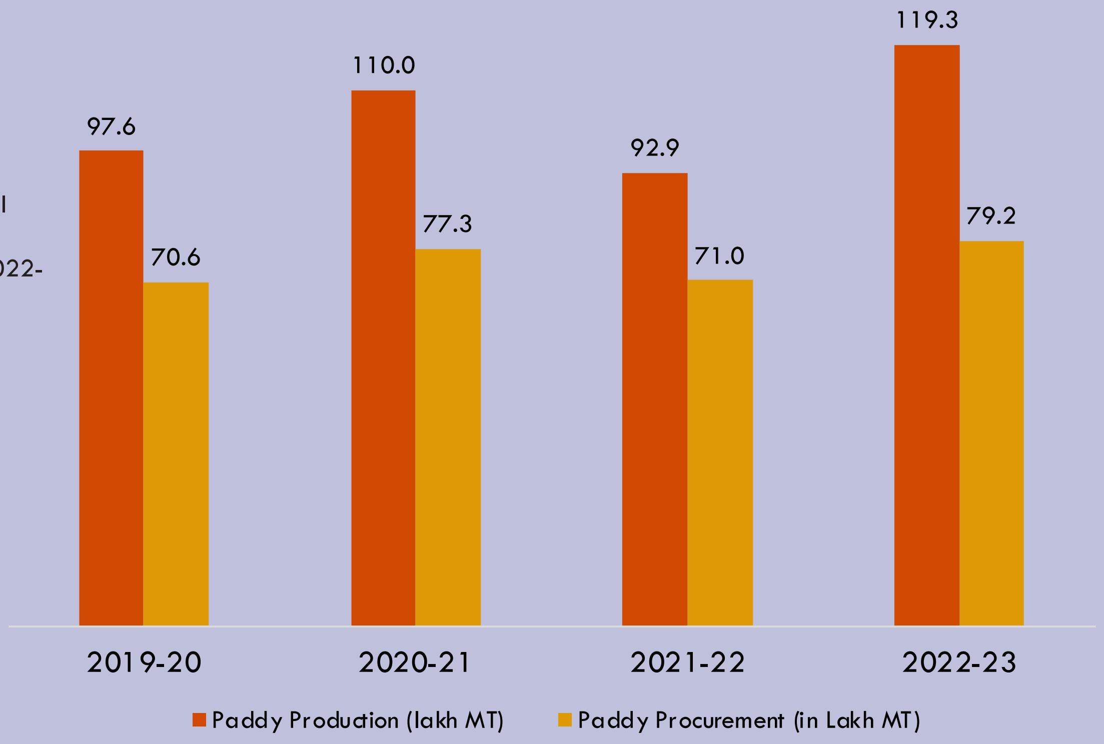
Between 1990-91 to 2022-23, Population multiplied by 1.45 times and foodgrain production grew by 2.0 times



Source: Directorate of Agriculture and Food Production, Government of Odisha.

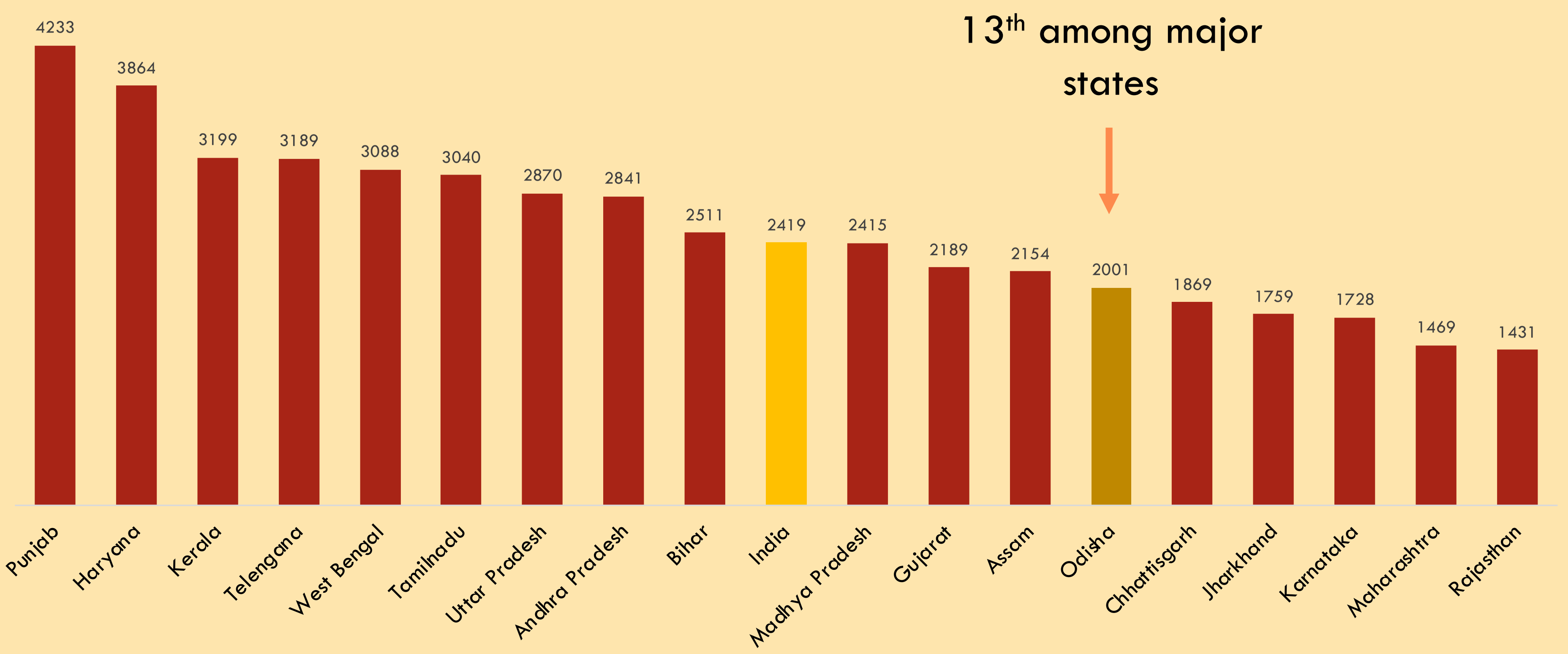
Figure 27 Paddy production and procurement in (lakh MT)

66.3% of total produce was procured in 2022-23



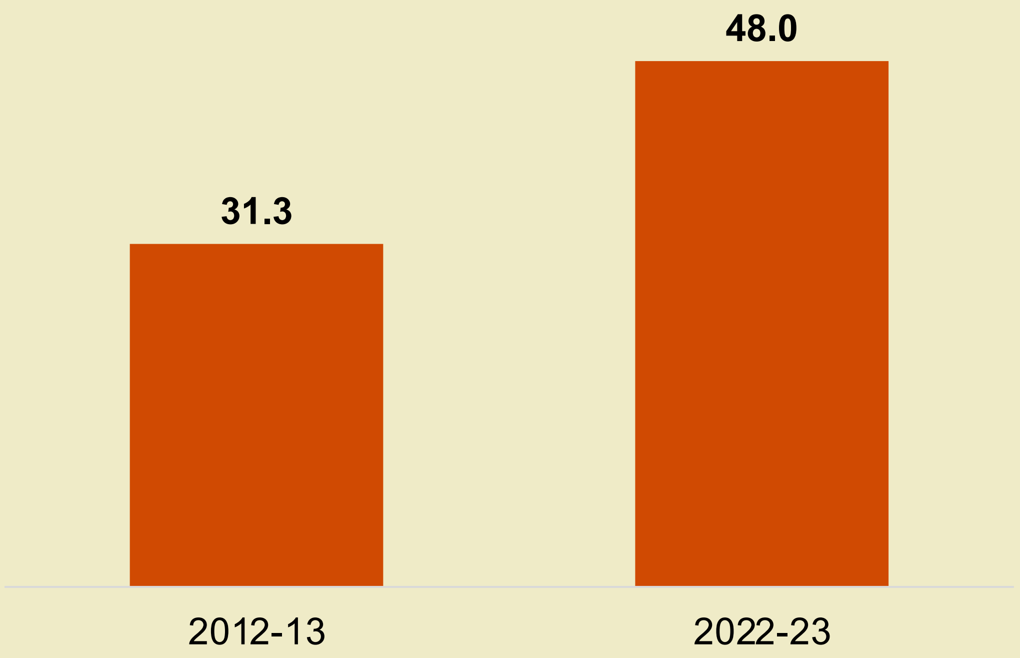
Source: FS & CW Department, & Directorate of Agriculture and Food Production, Government of Odisha.

Figure 28 **Foodgrain productivity (Kg/Ha) in 2021-22**



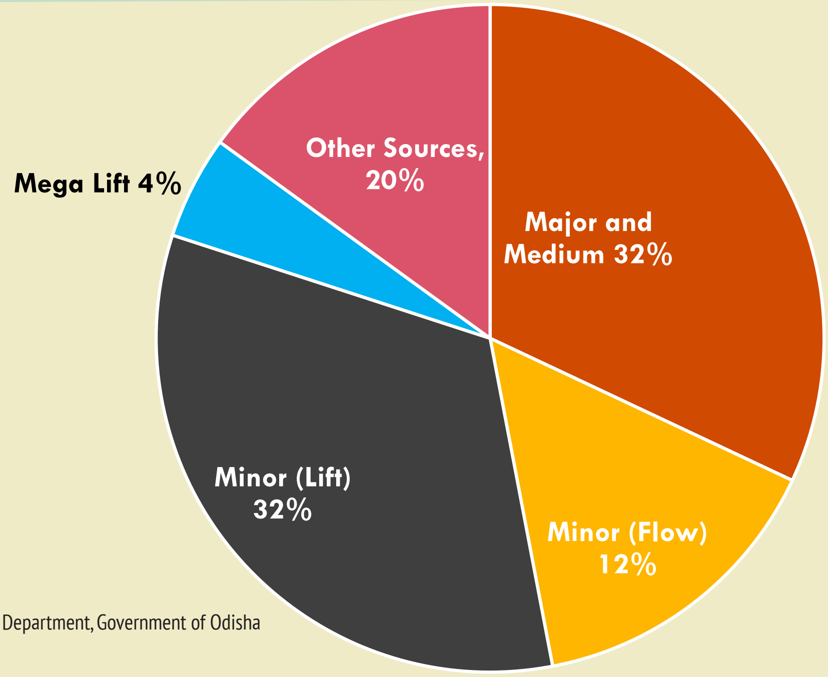
Source: Agricultural Statistics at a Glance 2022, Government of India.

Figure 29 Irrigation Potential Created (IPC) during Kharif – cumulative (in lakh ha)



Source: Water Resources Department, Government of Odisha

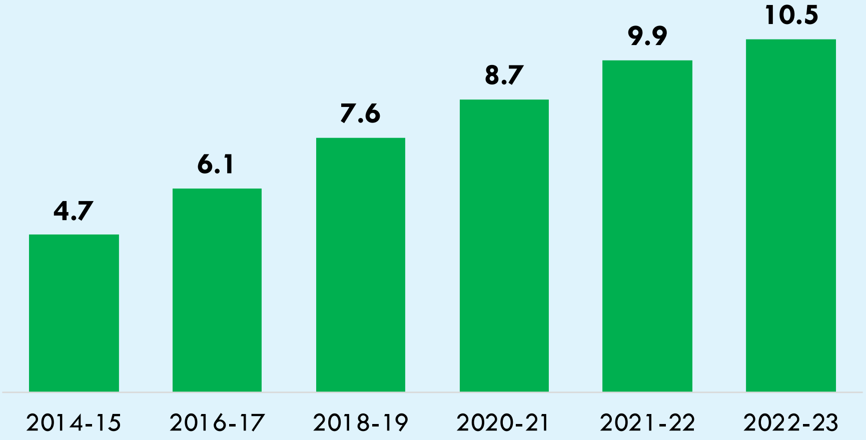
Figure 30 Percentage share of different sources of irrigation (2022-23)



Source: Water Resources Department, Government of Odisha

Figure 31

Fish Production in lakh MT in Odisha



Source: Directorate of Fisheries, Government of Odisha, Link (Accessed on 08th July 2024)
https://fisheries.odisha.gov.in/upload/files/01_54_06pm35186c287417744c3144ab6d70114bcb.pdf

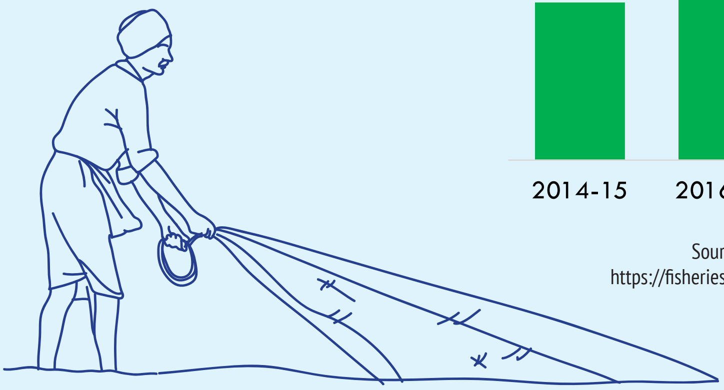
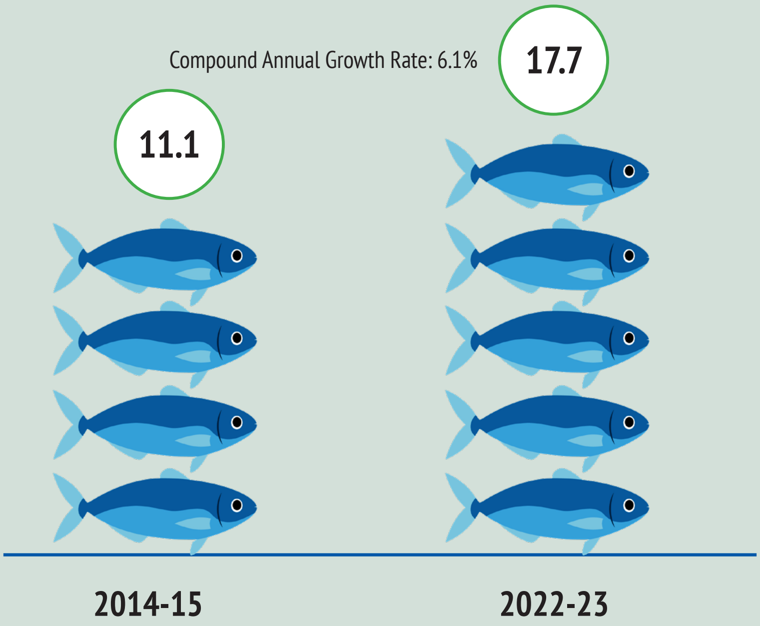
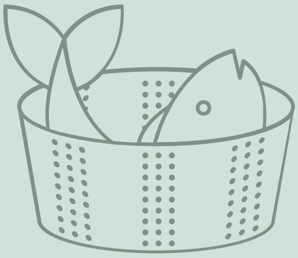


Figure 32

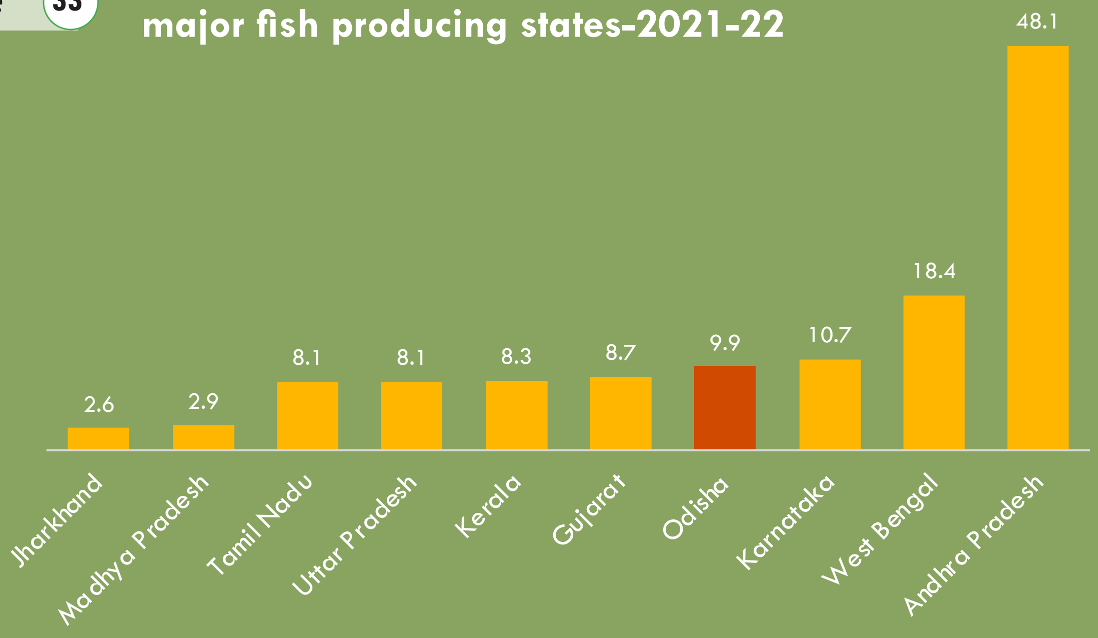
Per capita fish consumption in Odisha (kg/year)





Source: Directorate of Fisheries, Government of Odisha, Link (Accessed on 08th July 2024)
https://fisheries.odisha.gov.in/upload/files/01_54_06pm35186c287417744c3144ab6d70114bcb.pdf

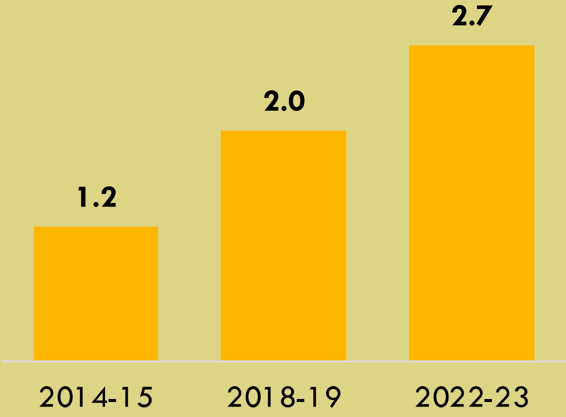
Figure 33 Fish production in lakh MT among major fish producing states-2021-22



Source: Handbook on Fisheries Statistics, 2022, Government of India.

Figure 34 Total fish and shrimp export in lakh MT- Odisha

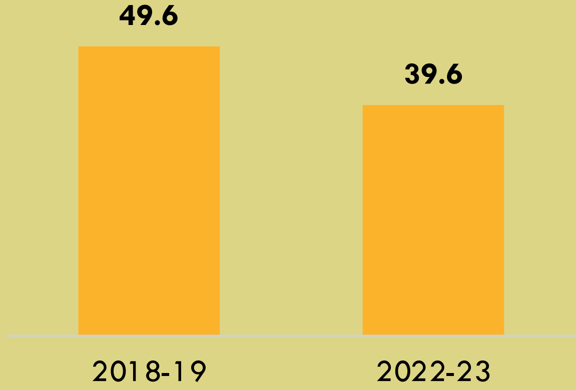
Compound Annual Growth Rate: 11.2%



Source: Directorate of Fisheries, Government of Odisha.

Figure 35 Import of freshwater fish (000' MT)-Odisha

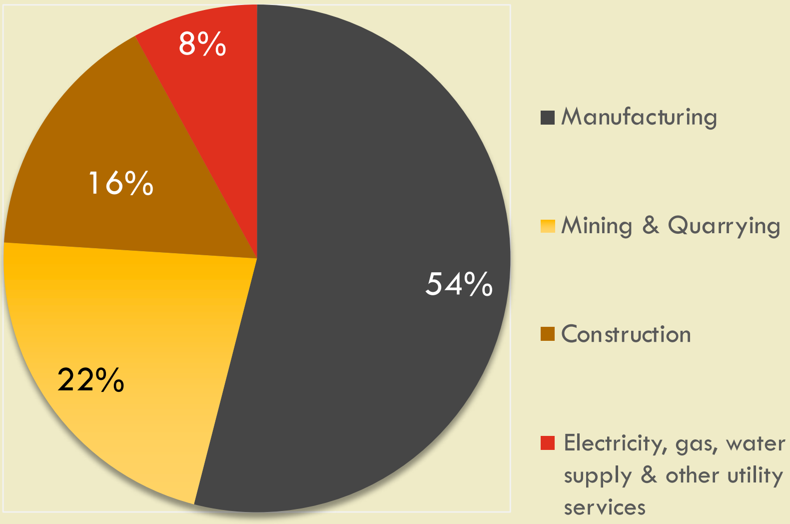
20% decline in fish imports between 2018-19 and 2022-23



Source: Directorate of Fisheries, Government of Odisha.

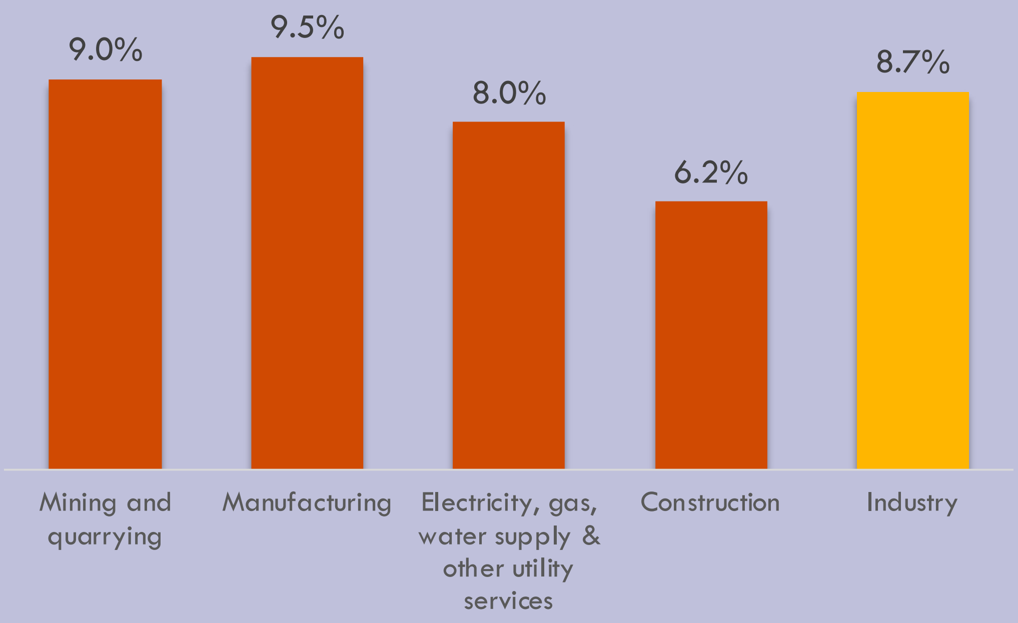
INDUSTRIAL SECTOR

Figure 36 Contribution of sub-sectors in Industry GSVA (2023-24), at current prices - Odisha



Source: Directorate of Economics & Statistics (DES), Government of Odisha.

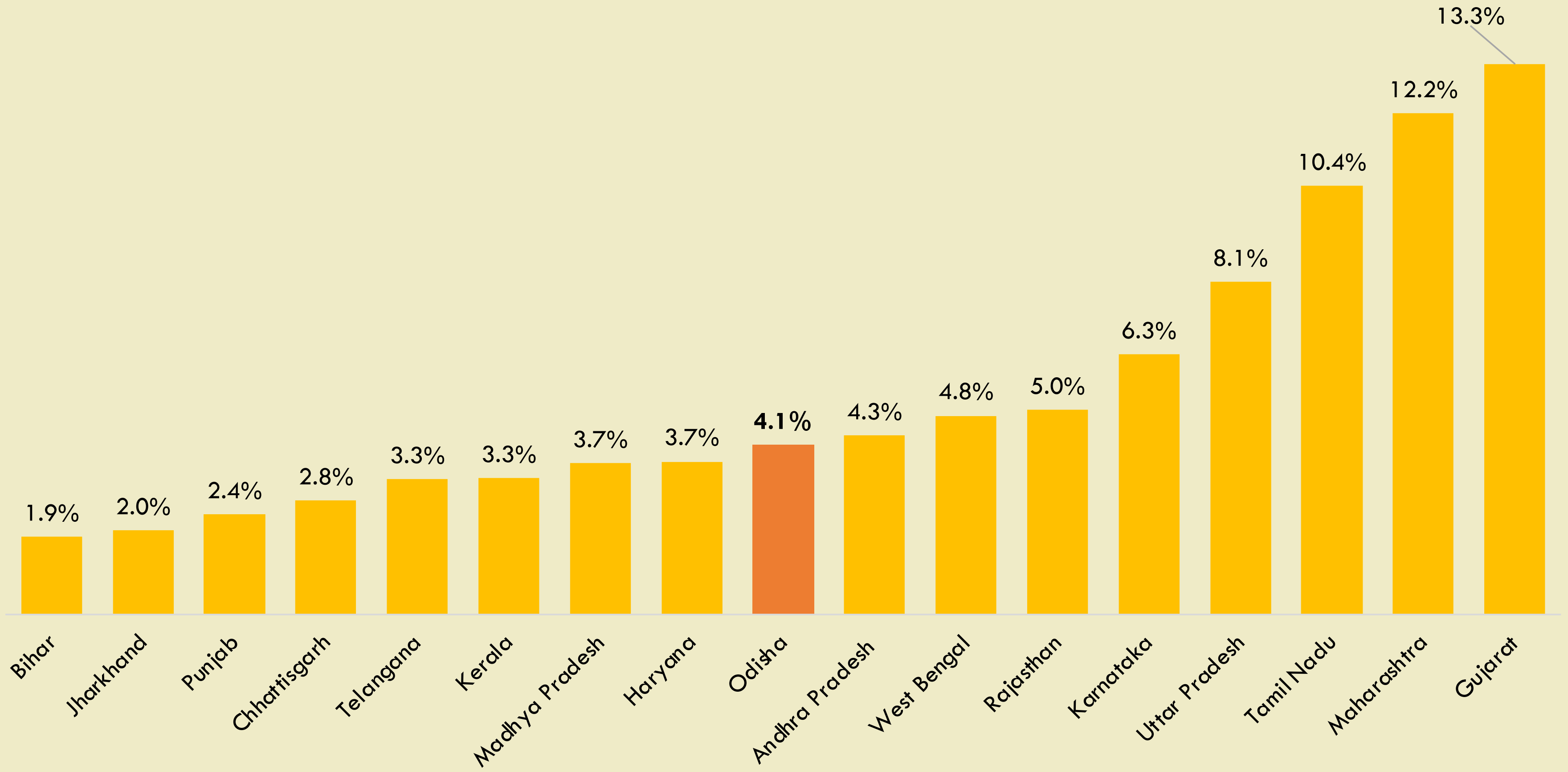
Figure 37 Growth of industry sector & sub-sectors (2023-24, Advance Estimate) at constant prices - Odisha



Source: Directorate of Economics & Statistics (DES), Government of Odisha.

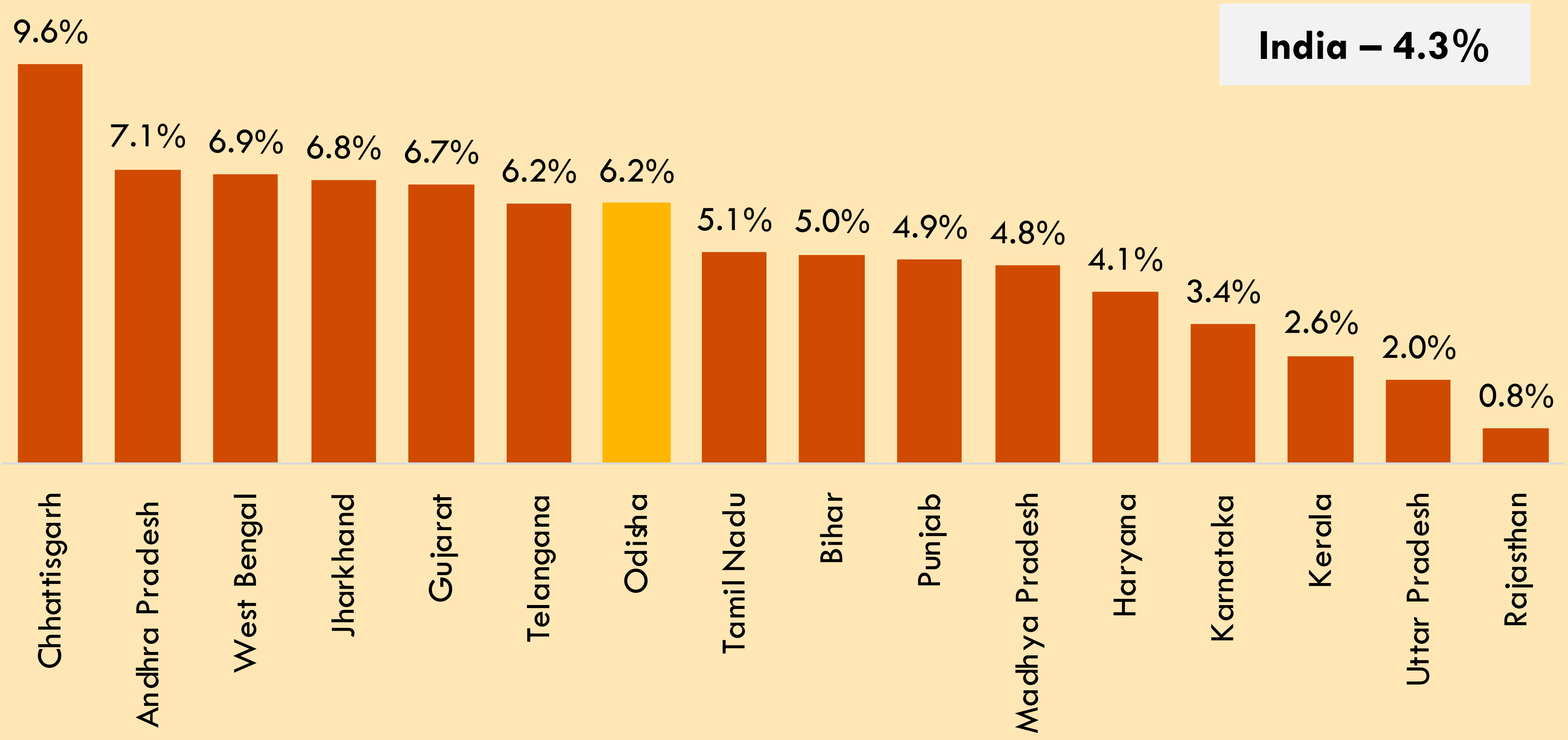
Figure 38

State wise share in India's industrial GVA, 2021-22



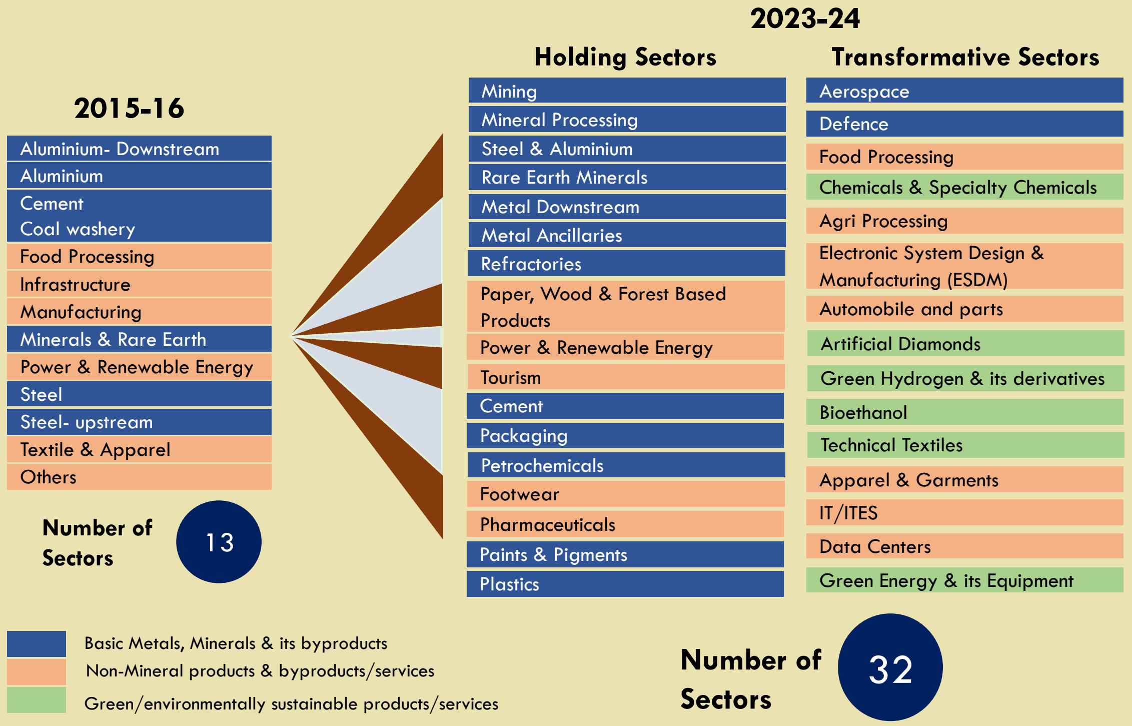
Source: Ministry of Statistics and Programme Implementation, Government of India; Directorate of Economics & Statistics, Government of Odisha

Figure 39 **State wise average industrial GSVA growth rate 2017-18 to 2021-22)**



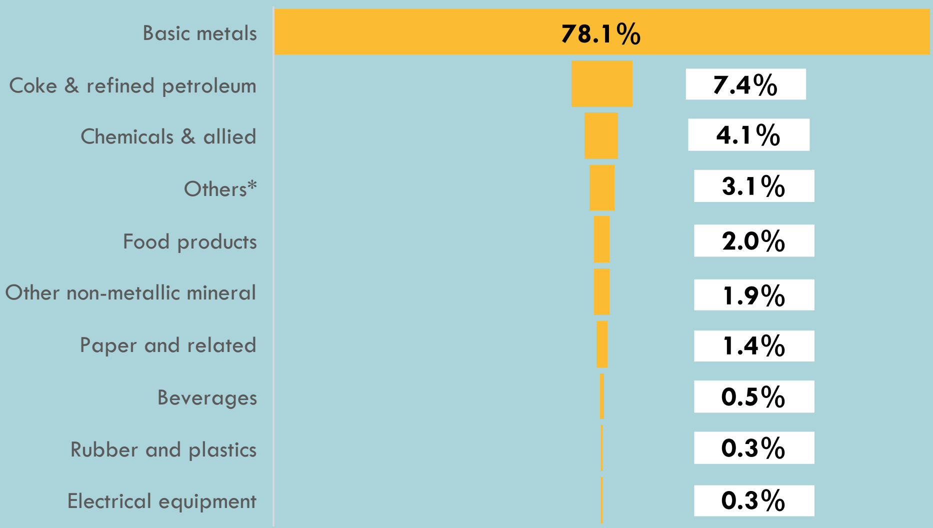
Source: Directorate of Economics and Statistics, Government of Odisha.; Ministry of Statistics and Programme Implementation, Government of India.

Figure 40 Industrial investment has become more broad based



Source: Industrial Promotion & Investment Corporation of Odisha, Government of Odisha

Figure 41 Sectoral contribution to organized manufacturing+ GSVA – Odisha (2021-22)

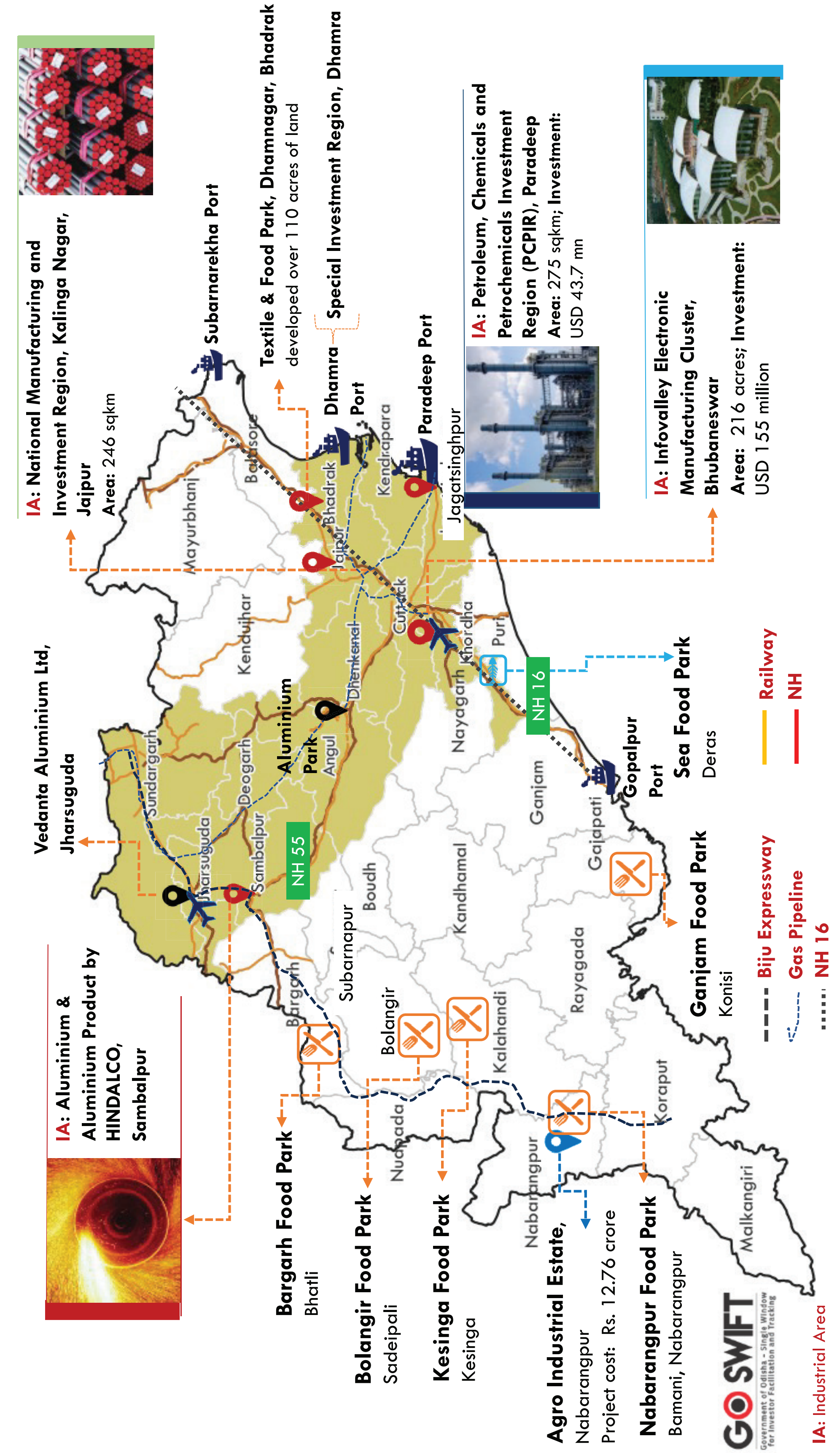


Source: Annual Survey of Industries 2021-22, Ministry of Statistics and Programme Implementation, Government of India.

*Others include Cotton, Salt production, tobacco, wearing apparel, leather, wood, printing, computer, electronic & electrical equipment, other transport equipment, furniture, repair and installation of machinery, Waste collection, treatment and disposal activities, Publishing activities and others +Organised manufacturing refers to all factories in ASI

- Industrial clusters along NH16, NH55 and Western Expressway
- Railway sidings available near all major industrial zones.
- Natural gas pipeline to cover 13 districts and connect major industrial clusters
- 2 Major Airports connecting the state to all parts of the country
- 3 existing ports at Paradip, Dhamra & Gopalpur and 2 upcoming ports of Subarnarekha and Mahanadi Riverine poised to make Odisha the Gateway to East and South-East Asia

Figure 42 Industrial Infrastructure and Clusters



Source: Industrial Promotion & Investment Corporation of Odisha, Government of Odisha

Figure 43

Industry: New-age industries

List of major investors in specific industries with future potential

Green Hydrogen & Ammonia

- Renew Power
- L&T Green Energy Ltd.
- Avada Energies
- ACME
- Sembcorp Group
- HYGENCO Group

Technical Textiles & Apparel

- Welspun Group
- EPIC Group
- MAS Holding
- First Step Baby Wear
- Indian Stitches

Food Processing

- Nestle
- Deevyashakti Group Ltd.
- Parle
- Varun Beverages
- ITC

IT/ITES

- Infosys BPM
- Accenture
- EY
- Synopsys
- Concentrix
- Cognizant
- Deloitte
- Happiest Minds
- Ctrl S
- PwC
- IBM

Metal Downstream & Ancillary

- Kalyani Steel Ltd.
- Shree Bajrang Power & Ispat Ltd.
- Welspun Group
- SMS Group
- TRL Krosaki

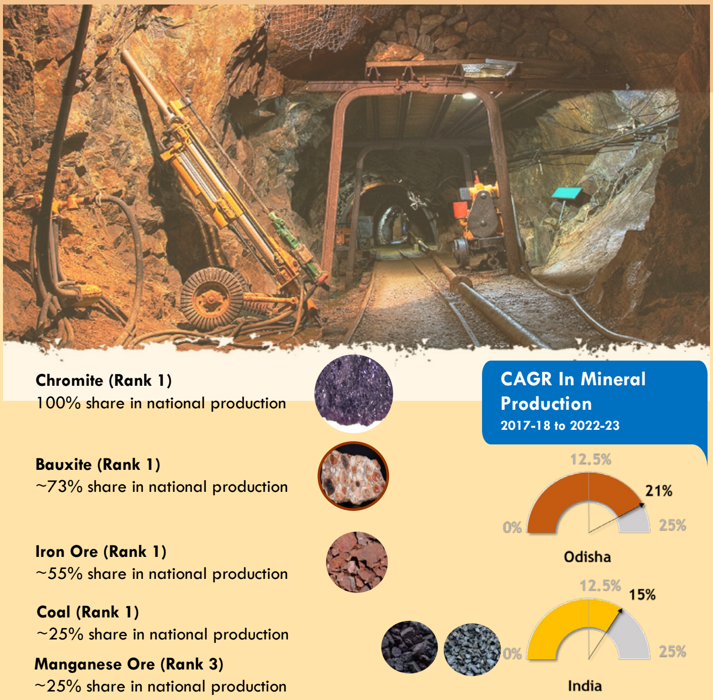
Chemicals & Petrochemicals

- Himadri Chemicals
- SILOX
- Epsilon Carbon
- Luminous Batteries
- Berger Paints

Source: Industrial Promotion & Investment Corporation of Odisha and Electronics & Information Technology Department , Government of Odisha

Figure 44

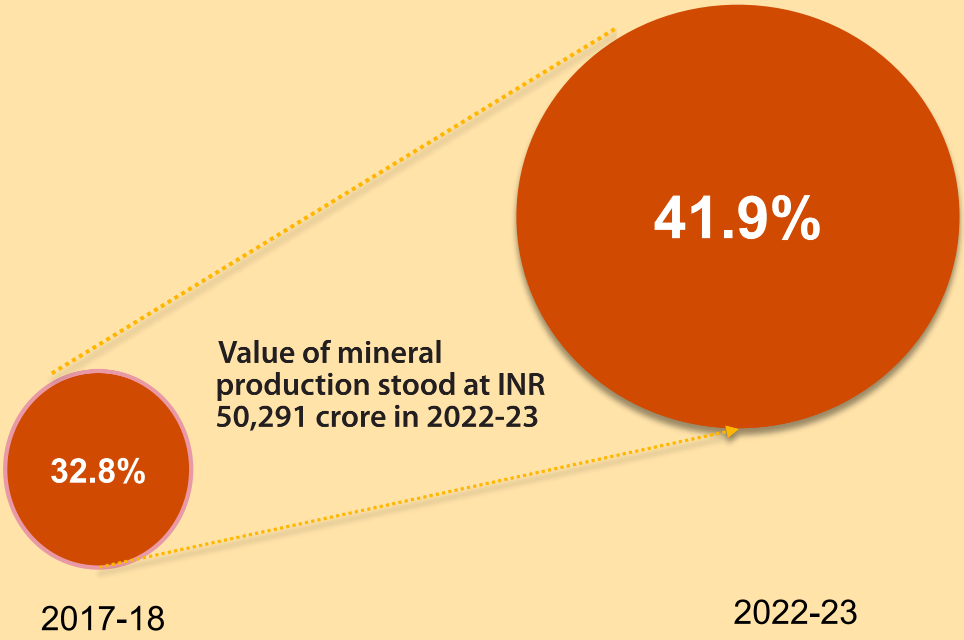
Share of Odisha in major mineral production of India (2022 – 2023)



Source: Indian Bureau of Mines, Government of India; Department of Steel & Mines, Government of Odisha.

Figure 45

Odisha's share (%) in total value of mineral production in India



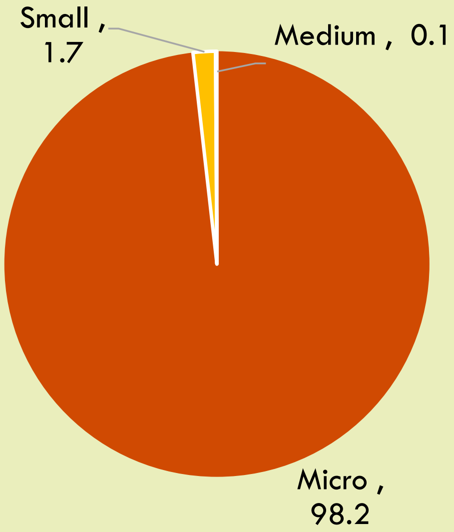
Source: Indian Bureau of Mines, Government of India; Department of Steel & Mines, Government of Odisha.

Figure 46 Distribution of MSMEs (in per cent)

8.41 lakhs

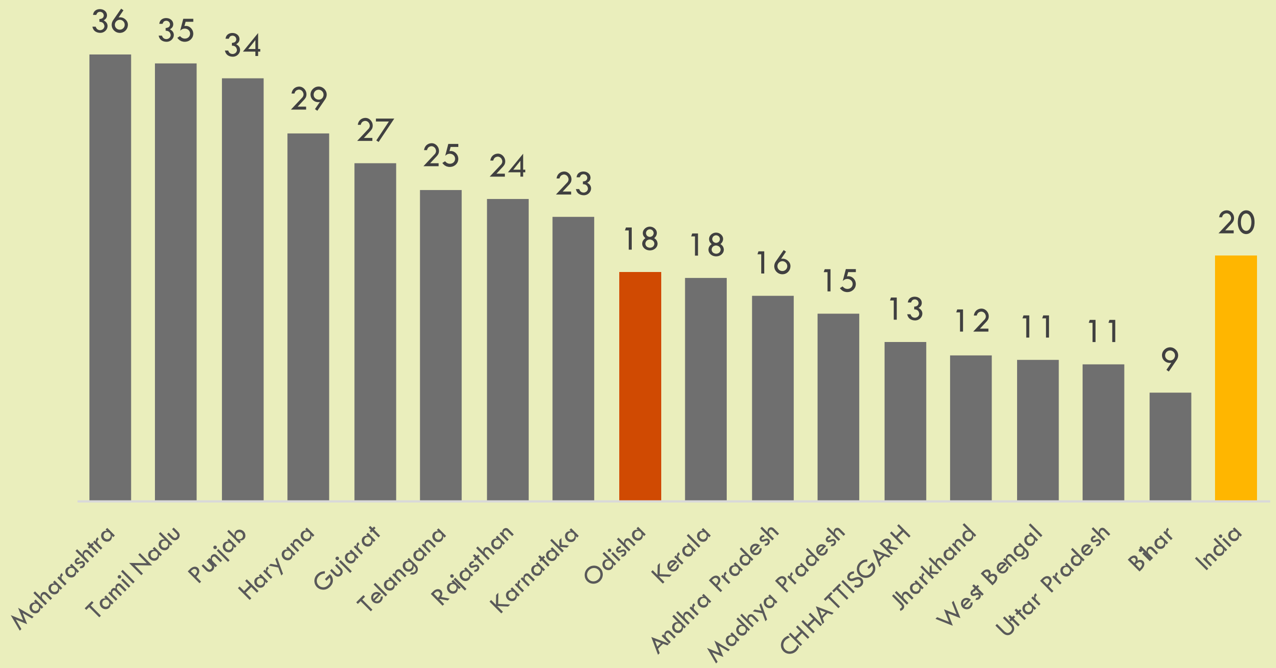
Number of Registered MSME in Odisha as per UDYAM (as of June 2024)

MICRO	8.26 lakh
SMALL	14.3 thousand
MEDIUM	1073



Source: MSME Dashboard, Ministry of MSME, Government of India; & Department of MSME, Government of Odisha.

Figure 47 UDYAM registered MSME per thousand population (in No.), as of June 2024

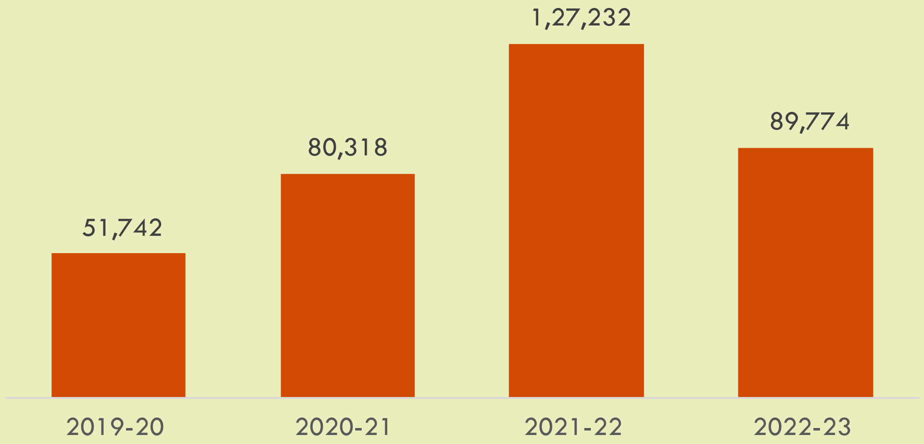


Source: MSME Dashboard, Ministry of MSME, Government of India; Department of MSME, Government of Odisha

Figure 48 Total exports in Odisha – 2019-20 to 2022-23 (INR Crore)

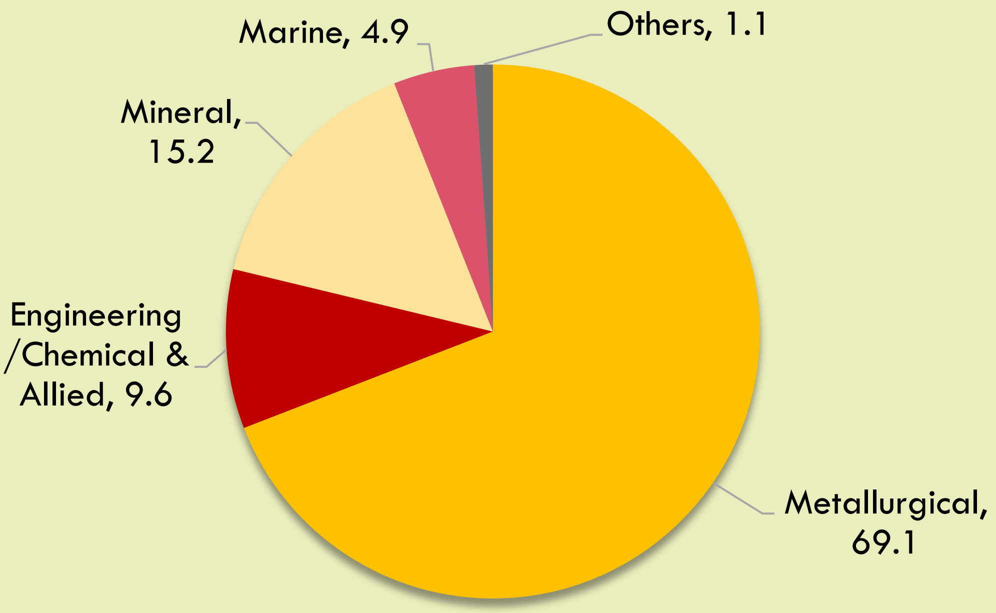
~ INR 90 thousand crore

Merchandise Export of Odisha in 2022-23 (Ranks 10th among all states with 2.5% national share)



Source: Directorate of Export Promotion & Marketing, Odisha and Dashboard, Ministry of Commerce and Industry, Government of India.

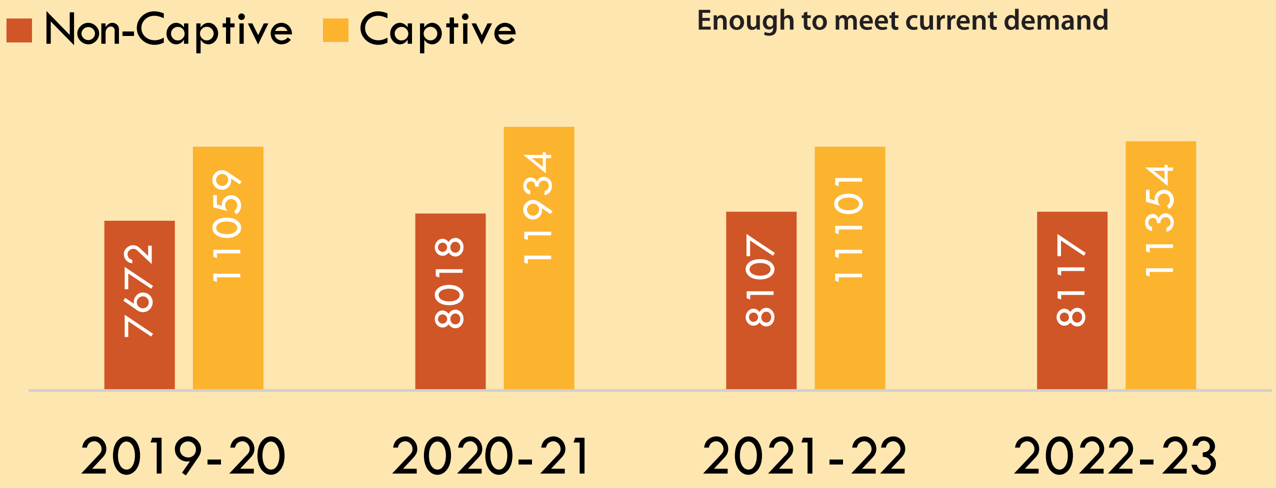
Figure 49 Composition of merchandise exports (%)- 2022-23



Source: Directorate of Export Promotion & Marketing, Odisha and Dashboard, Ministry of Commerce and Industry, Government of India.

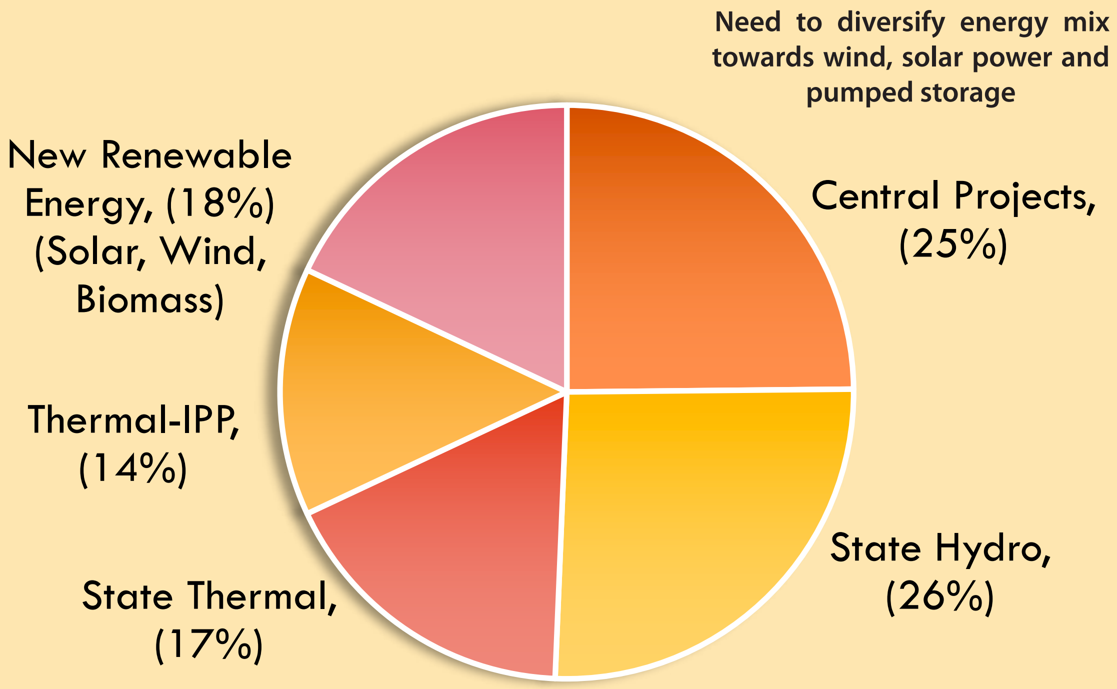
*Other products include Textiles, Agriculture & forest products, Pharmaceuticals, Handlooms, & Handicrafts.

Figure 50 **Contracted capacity of power (in MW)**



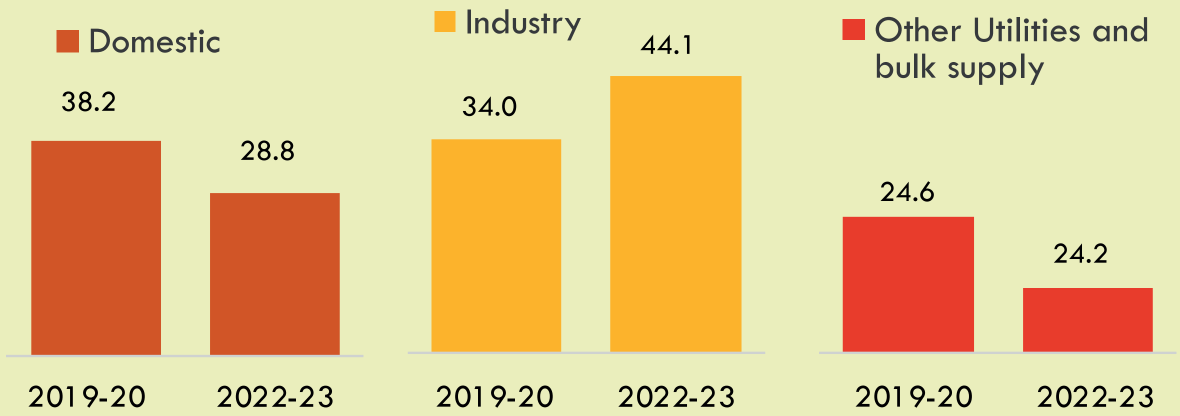
Source: Grid Corporation of Odisha (GRIDCO), Energy Department, Government of Odisha; Central Electricity Authority, Government of India.

Figure 51 **Power Share in total contracted capacity (MW), 2022-23**



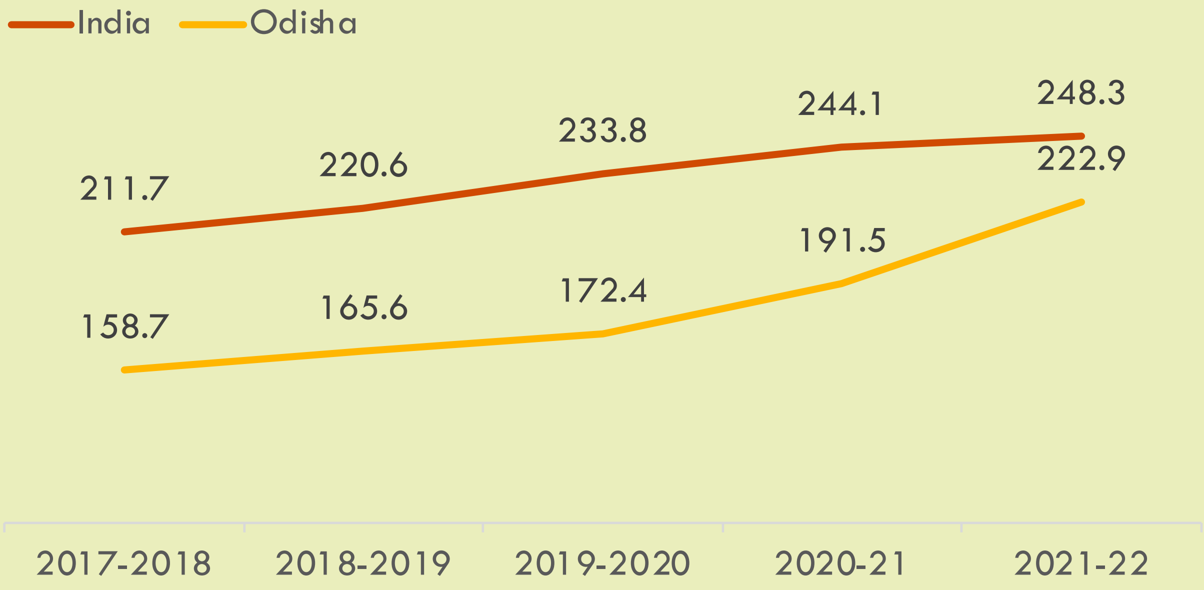
Source: Grid Corporation of Odisha (GRIDCO), Energy Department, Government of Odisha; Central Electricity Authority, Government of India.

Figure 52 **Sector wise electricity consumption (non-captive) in per cent**



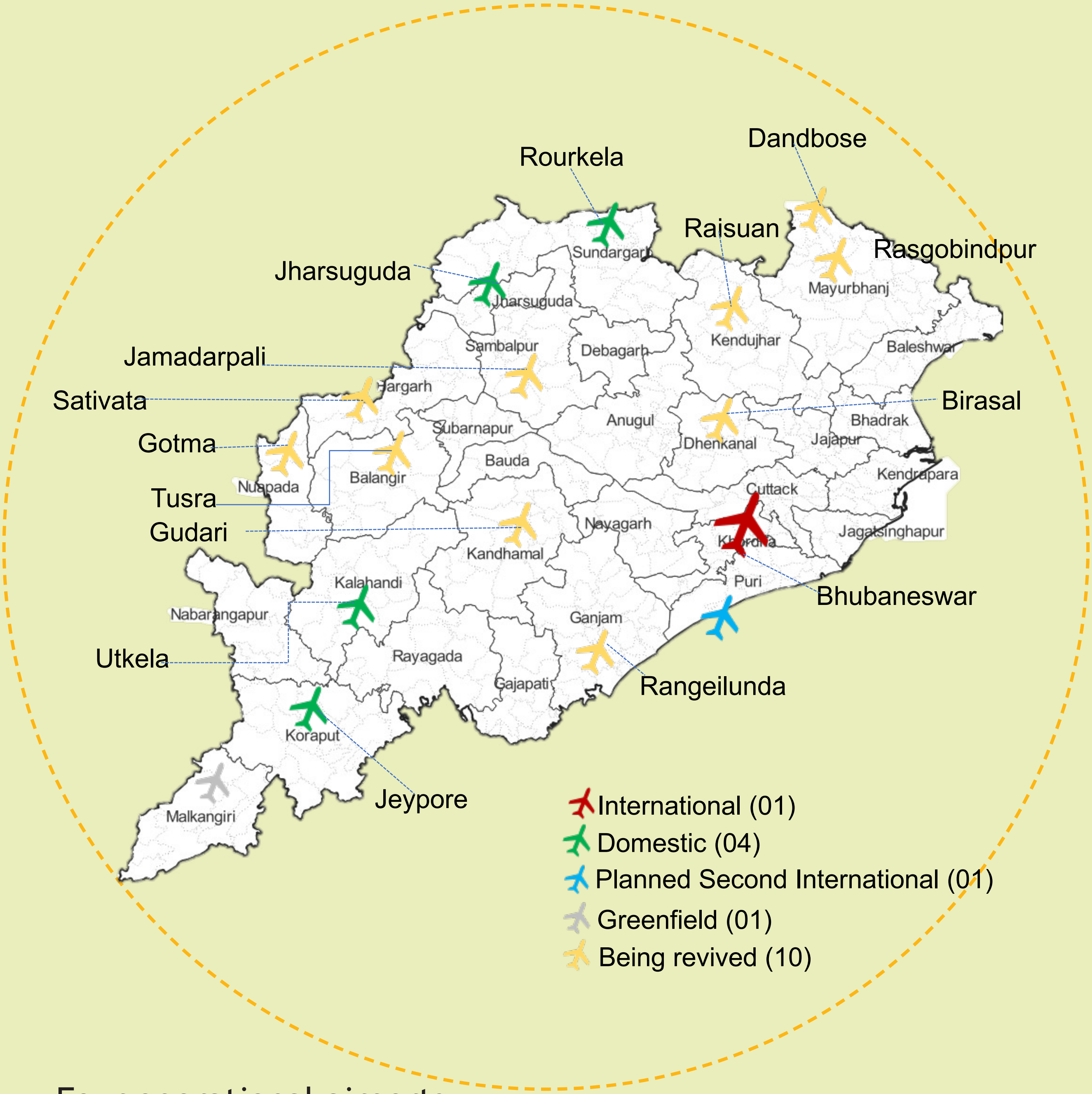
Note: Irrigation & Agriculture sector share 2.9% in 2022-23; Other utilities and bulk supply includes commercial, railway, public lighting, public works and bulk supply and other consumption.
Source: Grid Corporation of Odisha (GRIDCO), Energy Department, Government of Odisha; Central Electricity Authority, Government of India.

Figure 53 **Per capita domestic electricity consumption in kWh (excluding captive consumption)**



Source: Grid Corporation of Odisha (GRIDCO), Energy Department, Government of Odisha; Central Electricity Authority, Government of India.

Figure 54 Aviation Sector in Odisha



- Four operational airports
- Connecting 19 cities in India and 3 international destinations

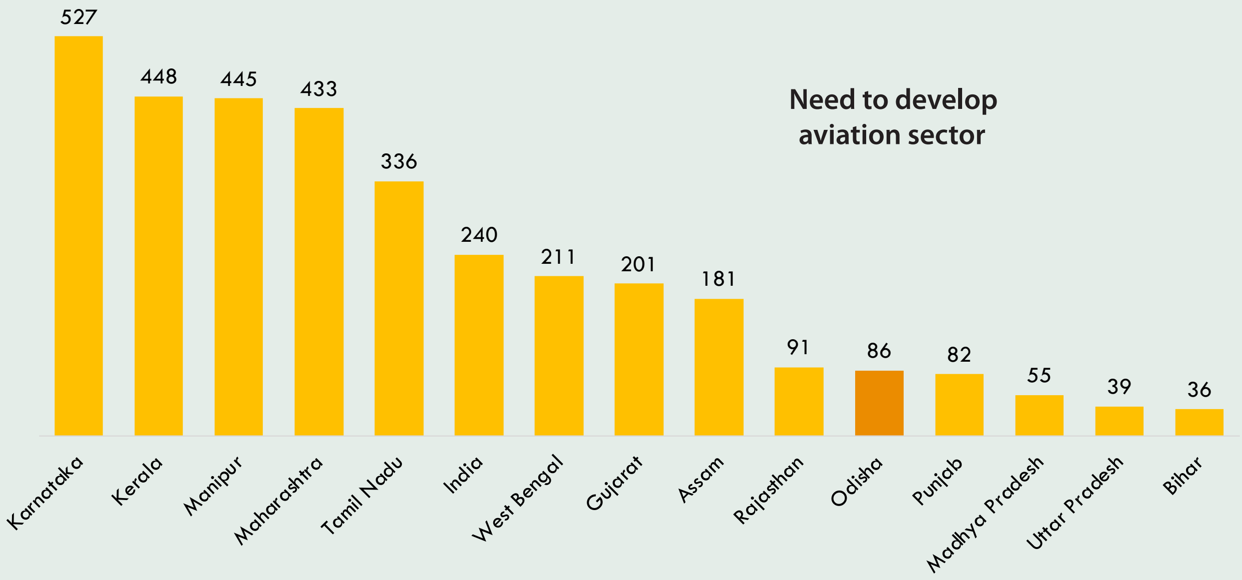
Source: Commerce & Transport Department, Government of Odisha

Table 1 No of Airports (2023)

State	Total
Andhra Pradesh	6
Gujarat	11
Karnataka	10
Kerala	4
Madhya Pradesh	5
Maharashtra	14
Odisha	**4**
Tamil Nadu	6
Telangana	2

Source: Airport Authority of India

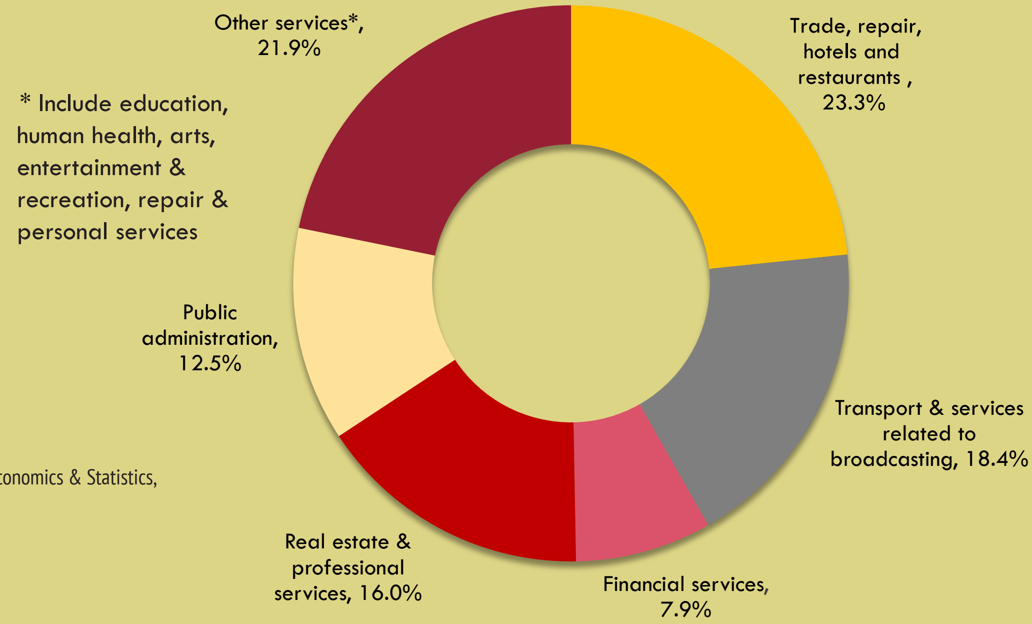
Figure 55 Air passenger traffic per million population, 2023 ('000 nos/million)



Source: Airport Authority of India

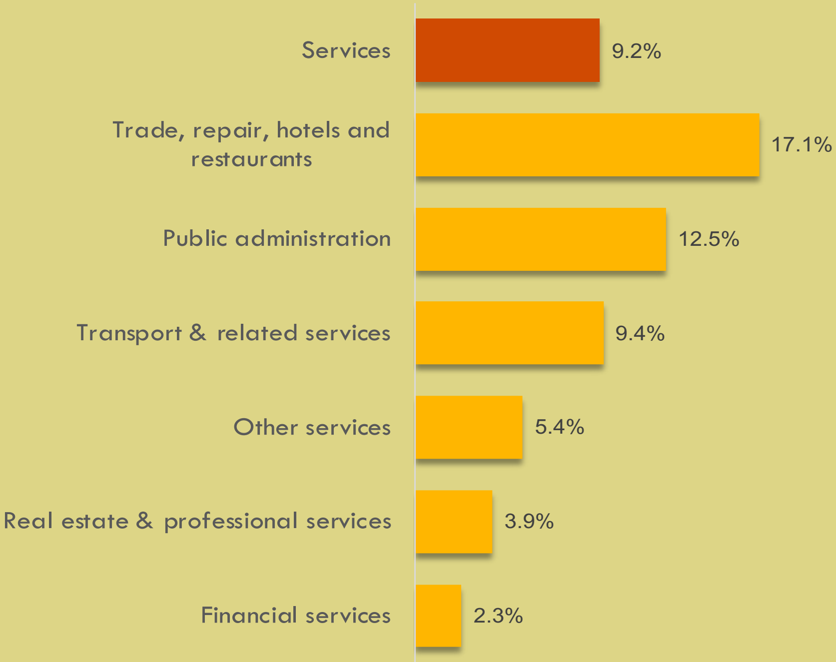
SERVICES SECTOR

Figure 56 Contribution of sub-sectors in services GSVA - 2023-24 (Advance Estimate)



Source: Directorate of Economics & Statistics, Government of Odisha.

Figure 57 Growth rate of services sector & sub-sectors-2023-24 (Advance Estimate)

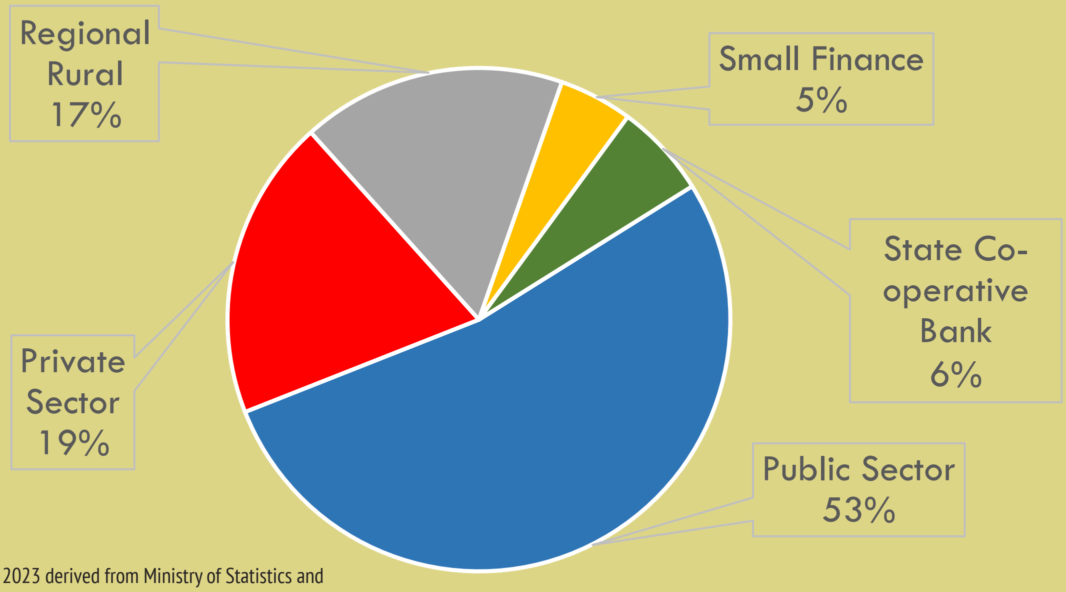


Source: Directorate of Economics & Statistics, Government of Odisha.

Figure 58 Compostion of Bank Branches in Odisha (by Bank Type)

5,774	**Bank Branches as of 2022-23**
13	Branches per lakh population* (2022-23)

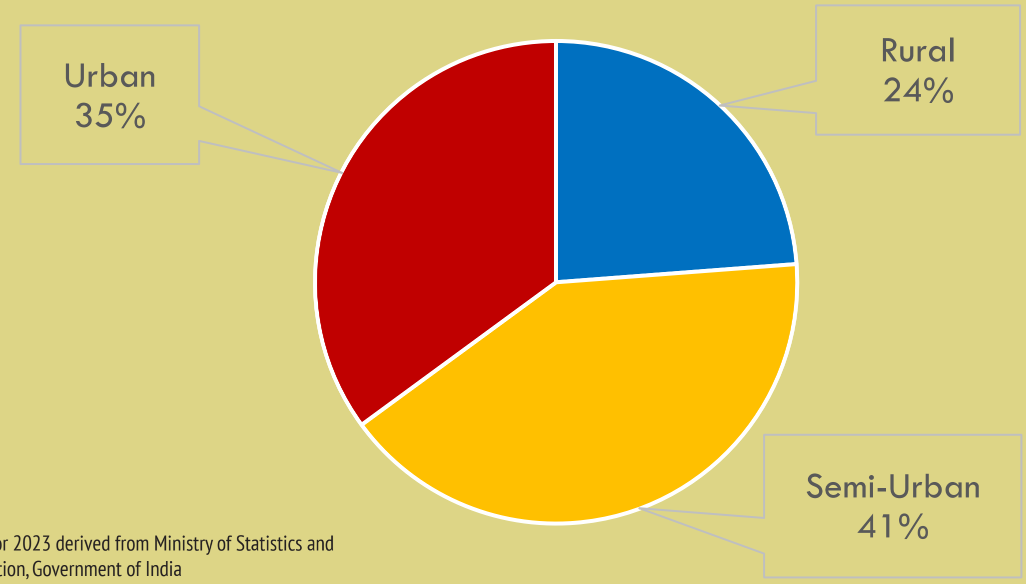
4373 - Number of GPs without Brick & Mortar (B&M) branches



*Population Projection for 2023 derived from Ministry of Statistics and Programme Implementation, Government of India
Source: State Level Bankers Committee Odisha (SLBC) Report (171st Meeting)

Figure 59 Bank ATM distribution in Odisha (by Geography)

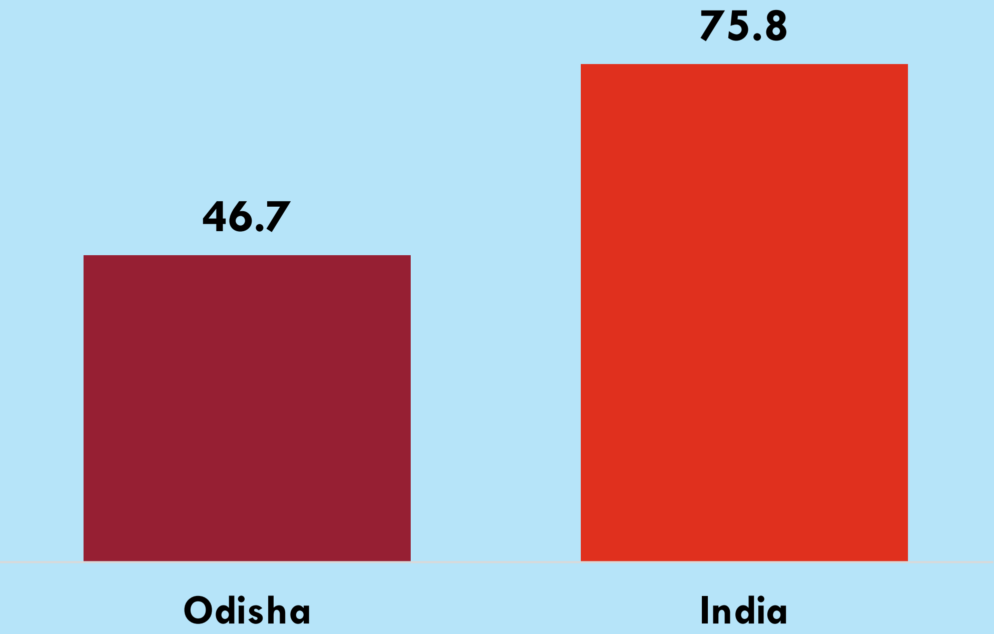
7,627	**Bank ATMs as of December 2022-23**
17	ATMs per lakh population* (2022-23)



*Population Projection for 2023 derived from Ministry of Statistics and Programme Implementation, Government of India
Source: State Level Bankers Committee Odisha (SLBC) Report (171st Meeting)

Figure 60

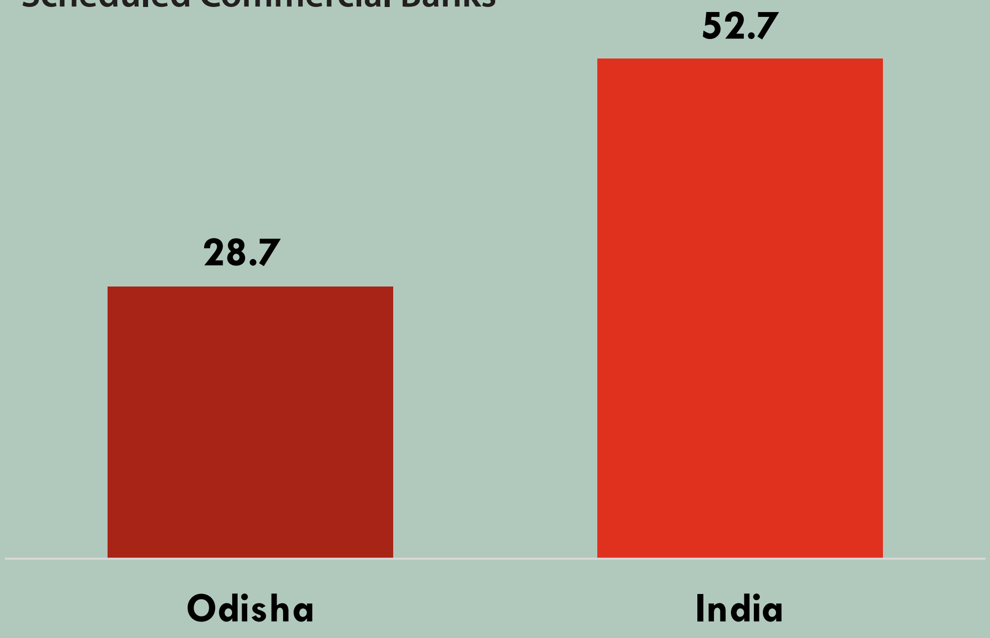
Credit to Deposit Ratio 2023 (%)- Scheduled Commercial Banks



Note : Credit to Deposit Ratio for Scheduled Commercial Banks (SCBs) and Co-operative Banks is 80.8% as of March 2023
Source: Reserve Bank of India, Government of India

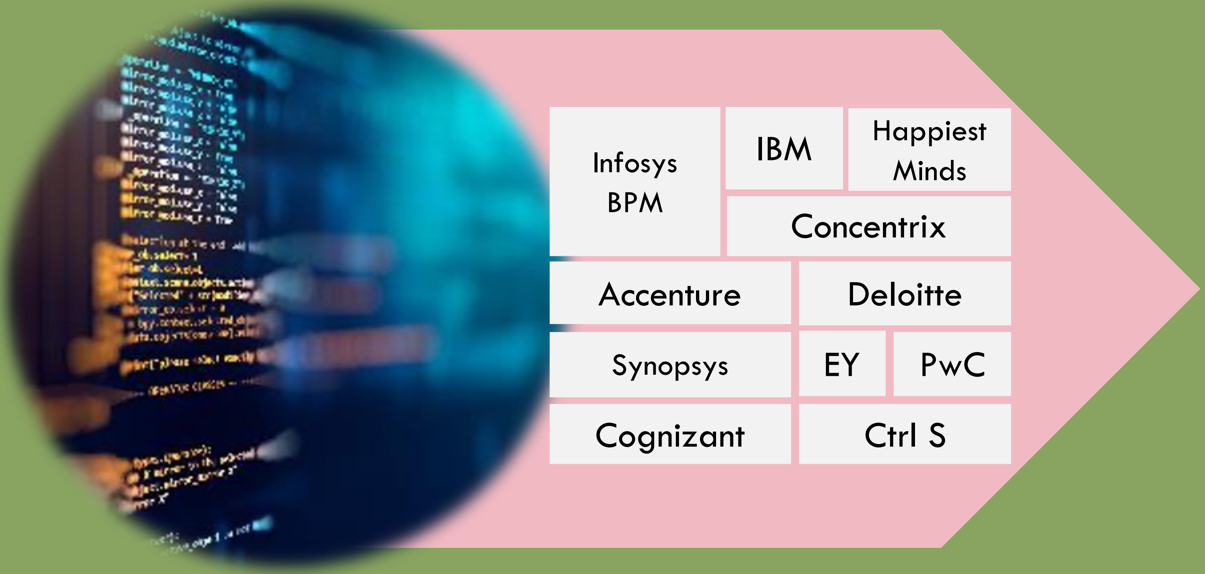
Figure 61

Credit to G(S)DP Ratio (2022-23) Scheduled Commercial Banks



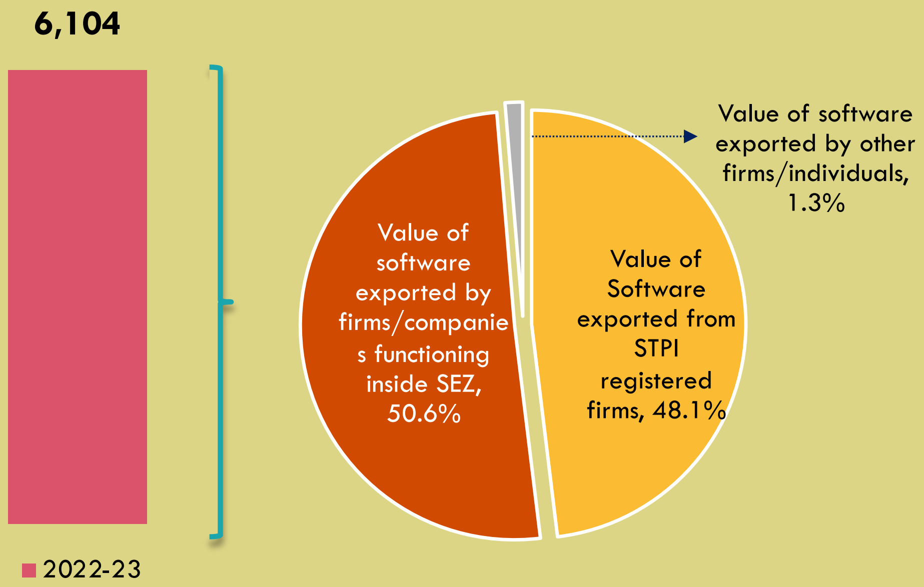
Source: Reserve Bank of India, Government of India

Figure 62 Major IT companies in Odisha since 2022



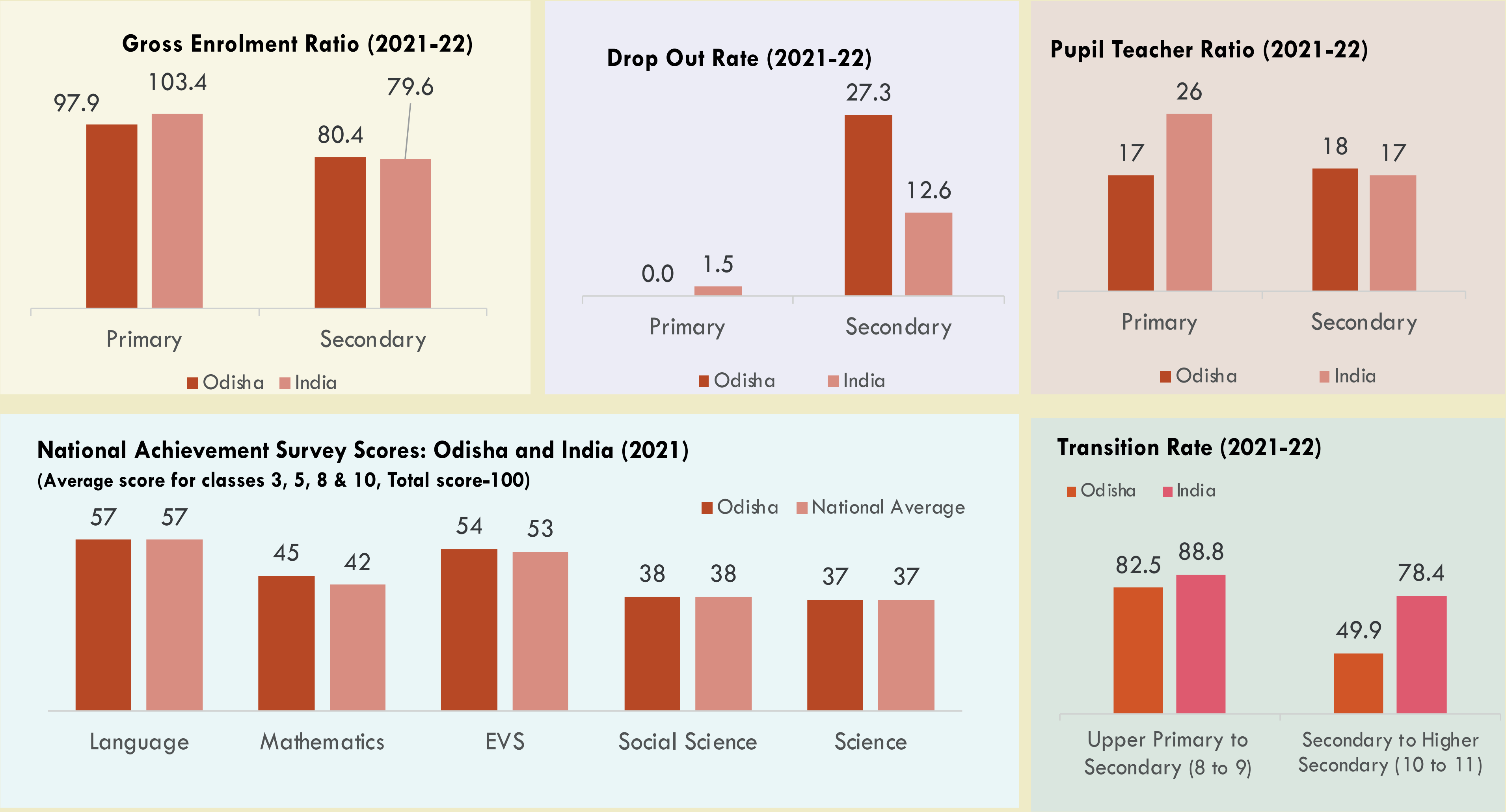
Source: Electronics & Information Technology Department, Government of Odisha.

Figure 63 Total Value of Software Exports from Odisha (INR Crore)



Source: Electronics & Information Technology Department, Government of Odisha.

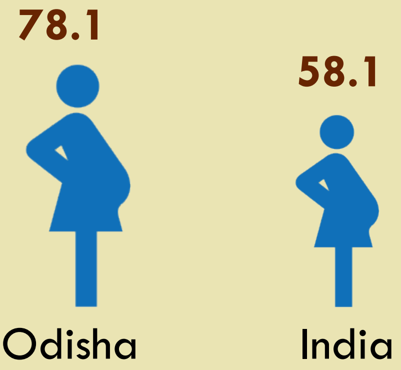
Figure 64 School education Scenario



Source: UDISE 2021-22; and National Achievement Survey 2021, Government of India.

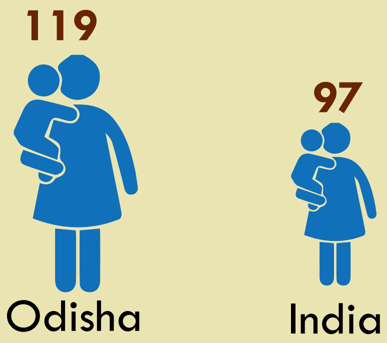
Maternal health

Figure 65 Mothers who had at least 4 antenatal care visits (%), 2019-21



Source: National Family Health Survey (NFHS-5)
State Factsheets.

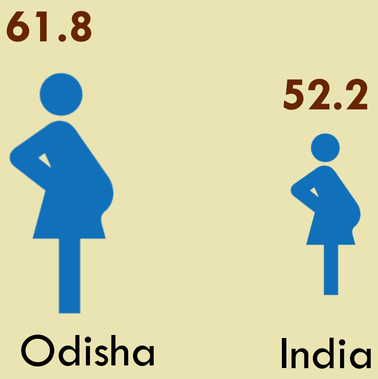
Figure 66 Maternal Mortality Ratio, 2018-20
(Number of maternal deaths per One lakh live births)



Source: Sample Registration System (SRS)
Maternal Mortality Bulletin

Figure 67

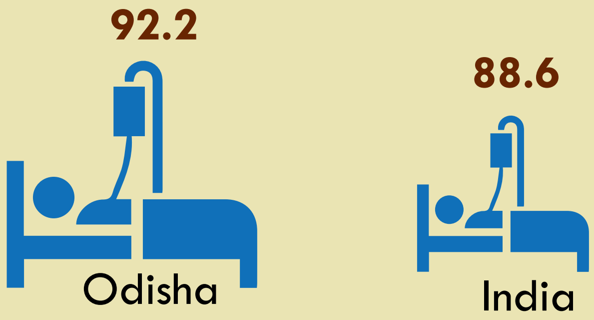
Pregnant women (15-49 years) who are anaemic (%), 2019-21



Source: National Family Health Survey (NFHS-5)
State Factsheets.

Figure 68

Institutional births (%), 2019-21

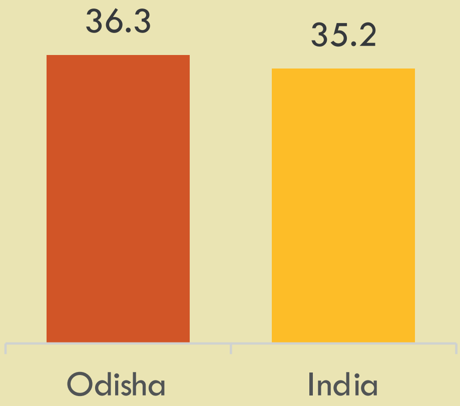


Source: National Family Health Survey (NFHS-5)
State Factsheets.

Child Health and Nutrition

Figure 69

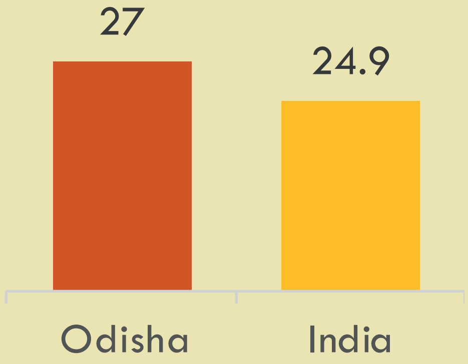
Infant Mortality Rate, 2019-21 (per 1000 live births)



Note: IMR is number of infant deaths aged less than one year per 1000 live births
Source: National Family Health Survey (NFHS-5) State Factsheets.

Figure 70

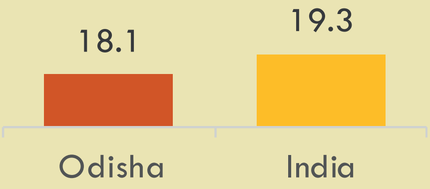
Neonatal Mortality Rate (NMR), 2019-21 (per 1000 live births)



Note: NMR is number of infant deaths aged less than twenty nine days per 1000 live births
Source: National Family Health Survey (NFHS-5) State Factsheets.

Figure 71

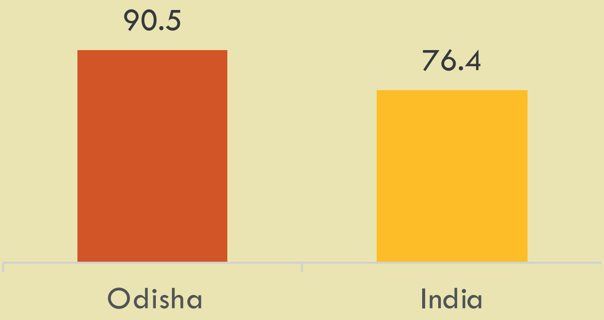
Percentage of children under five years of age who are wasted (weight-for-height), 2019-21



Source: National Family Health Survey (NFHS-5) State Factsheets.

Figure 72

Percentage of children aged 12-23 months fully vaccinated, 2019-21



Source: National Family Health Survey (NFHS-5) State Factsheets.

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ACRONYMS

Acronym	Full form
ADB	Asian Development Bank
ADP	Aspirational Districts Programme
AE	Advance Estimate
AHSCE	Annual High School Certificate Examination
AICTE	All India Council for Technical Education
AJY	Ama Jangal Yojana
APC	Agriculture Production Clusters
ASHA	Accredited Social Health Activist
ASHE	All India Survey on Higher Education
ASI	Annual Survey of Industries
ASTI	Aerospace Software & Technology Institute
BE	Budget Estimate
BLIS	Bank Linkage & Interest Subvention
BRAP	Business Reforms Action Plan
CAGR	Compound Annual Growth Rate
CCTNS	Crime and Criminal Tracking Network and Systems
CDA	Chilika Development Authority
CES	Centre for Environmental Studies
CETP	Common Effluent Treatment Plant
CFC	Common Facility Centers
CFL	Centers for Financial Literacy
CGP	Captive Generating Plants
CIMS	Customer Integrated Management Service
CMAM	Community-Based Management of Acute Malnutrition
CMIE	Centre for Monitoring Indian Economy
CMPDP	Chief Minister's Power Development Programme
CPP	Captive Power Plants
CRUT	Capital Region Urban Transport
CSOC	Cyber Security Operation Centre
CSR	Corporate Social Responsibility
CWSN	Children With Special Needs
DAMPS	Disaster Assistance Monitoring and Payment System
DBI	Debt Burden Indicators
DEPM	Directorate of Export Promotion & Marketing
DIPA	District Investment Promotion Agency
DIPI	District Industrial Performance Index
DISCOM	Distrbution Companies
DLFC	District Level Facilitation Cell
DMF	District Mineral Foundations
DPIIT	Department for Promotion of Industry and Internal Trade
DSC	Digital Signature Certificate
ECCE	Early Childhood Care and Education
EIA	Environmental Impact Assessment
EMAS	Emergency Medical Ambulance Service
EMDE	Emerging Market and Developing Economies
EODB	Ease of Doing Business
EPI	Export Preparedness Index
ESDM	Electronics System Design & Manufacturing
ESI	Employee State Insurance Scheme
EV	Electric Vehicle
EWS	Economically Weaker Sections
FC	Finance Commission
FDI	Foreign Direct Investment
FIEO	Federation of Indian Export Organisations
FIF	Financial Inclusion Funds
FLAP	Financial Literacy Awareness Programs
FRA	Forest Right Act
FRBM	Fiscal Responsibility and Budget Management
FRP	Fibre Reinforced Plastic
FRS	Fiscal Risk Statement
FSR	Fiscal Strategy Report
FWPR	Female Worker Population Ratio
G2B	Government to Business
G2C	Government to Citizen
G2G	Government to Government
GDP	Gross Domestic Product
GFCF	Gross Fixed Capital Formation
GFR	General Fertility Rate
GIM	Green India Mission
GIS	Geographic Information System
GI	Geographical Indication
GLAMS	Government Land Allotment Management System
GMM	Generalised Method of Moments
GO-SWIFT	Government of Odisha – Single Window for Investor Facilitation and Tracking
GPI	Gender Parity Index
GSDP	Gross State Domestic Product
GST	Goods & Services Tax
GVA	Gross Value Added
HRMS	Human Resource Management System
HSG	High Spending Groups
i3MS	Integrated Mines and Minerals Management System
i4MS	Integrated Minor Mineral Mining Management System
ICD	Inland Containerized Depots
ICDS	Integrated Child Development Services
IDCO	Industrial Development Corporation of Odisha Limited
IESA	India Electronic and Semiconductor Association
IGEA	Investment Grade Energy Audit
IMF	International Moneytary Fund
IMR	Infant Mortality Rate
IOCL	Indian Oil Corporation Limited
IPHS	Indian Public Health Standards

IPICOL	Industrial Promotion and Investment Corporation of Odisha Limited
IPP	Independent Power Producers
IPR	Industrial Policy Resolution
IPRR	Interest Payment to Revenue Receipt
IRMS	Integrated Recruitment Management System
ISPS	International Ship and Port Facility Security Code
ITDA	Integrated Tribal Development Agency
ITES	Information Technology Enabled Services
ITF	International Tennis Federation
IWAI	Inland Waterways Authority of India
IWT	Inland Water Transport
IYDP	Integrated Youth Development Programme
JLG	Joint Liability Group
LAMPCS	Large Area Multi-Purpose Cooperative Societies
LED	Light Emitting Diode
LMS	Litigation Management System
LSG	Lower Spending Groups
LTL	Long Term Linkage
MCC	Model Career Center
MDM	Mid-Day Meal
MFD	Multi-Function Device
MIO	Make in Odisha
MLIP	Mega Lift Irrigation Projects
MMR	Maternal Mortality Ratio
MMTPA	Million Metric Tons Per Annum
MoSPI	Ministry of Statistics & Programme Implementation
MOTHER	Modern Organization for Truth, Harmony, and Economic Reality
MPI	Multi-dimensional Poverty Index
MQIC	Modified Quasi Information Criterion
MSE-CDP	Micro and Small Enterprises – Cluster Development Programme
MSG	Middle Spending Groups
MSME	Micro, Small & Medium Enterprises
MSP	Minimum Support Price
MTFF	Medium-Term Fiscal Framework
MTPA	Million Tonnes Per Annum
MWS	Minor Water Sources
NAFED	National Agricultural Cooperative Marketing Federation of India Limited
NAP	National Afforestation Programme
NDC	Nationally Determined Contributions
NeGP	National e-Governance Plan
NFHS	National Family Health Survey
NIC	National Industrial Classification
NISE	National Institute of Solar Energy
NIWE	National Institute of Wind & Energy
NNMR	Neo-natal Mortality Rate
NOC	Network Operation Centre
NPA	Non-Performing Asset
NQAS	National Quality Assurance Standards
NRC	Nutrition Rehabilitation Center
NRDWP	National Rural Drinking Water Programme
NSDP	Net State Domestic Product
NSSF	National Small Saving Fund
NSWS	National Single Window System
OECBC	Odisha Energy Conservation Building Code and Rules
OECD	Organisation for Economic Cooperation and Development
OERC	Odisha Electric Regulatory Commission
OFC	Optical Fiber Cables
OFSDP	Odisha Forest Sector Development Project
OFSDS	Odisha Forestry Sector Development Society
OJWAS	Odisha Judicial Workflow Automation System
OMB	Odisha Maritime Board
OMC	Odisha Mining Corporation
OMM	Odisha Millets Mission
OPEC	Organization of Petroleum Exporting Countries
OPELIP	Odisha PVTG Empowerment & Livelihoods Improvement Programme
OPTCL	Odisha Power Transmission Corporation Limited
OREP	Odisha Renewable Energy Policy
ORIDL	Odisha Rail Infrastructure Development Limited
ORMAS	Odisha Rural Development and Marketing Society
ORTPSA	Odisha Right to Public Services Act
OSDC	Odisha State Data Centre
OSDMA	Odisha State Disaster Management Authority
OSRTC	Odisha State Road Transport Corporation
OSSC	Odisha State Seeds Corporation Limited
OSSOPCA	Odisha State Seed and Organic Products Certification Agency
OSWAN	Odisha Statewide Area Network
OSWAS	Odisha State Workflow Automation System
OTDC	Odisha Tourism Development Corporation
OTELP	Odisha Tribal Empowerment & Livelihoods Programme
OTSSP	Odisha Transmission System Strengthening Programme
OUHM	Odisha Urban Housing Mission
OVEP	Olympic Values Education Programme
PAT	Perform Achieve Trade
PCPIR	Petroleum Chemicals and Petrochemicals Investment Region
PCR	Protection of Civil Rights
PDS	Public Distribution System
PIA	Project Implementing Agency
PLFS	Periodic Labour Force Survey
PMAGY	Pradhan Mantri Adarsh Gram Yojana
PMAYG	Pradhan Mantri Awas Yojana-Gramin
PMFBY	Pradhan Mantri Fasal Bima Yojana

PMKSY	Pradhan Mantri Krishi Sanchaee Yojana
PPA	Power Purchase Agreement
PPP	Public-Private Partnership
PVTG	Particularly Vulnerable Tribal Groups
PWCS	Primary Weavers Cooperative Societies
RBSK	Rashtriya Bal Swasthya Karyakram
RCPSDC	Rubber,Chemical,Petrochemical and Skill Development Council
RCS	Regional Connectivity Scheme
RE	Renewable Energy
RLDC	Regional Load Despatch Centre
RMC	Regulated Market Committee
RMSA	Rashtriya Madhyamik Shiksha Abhiyan
RPO	Renewable Purchase Obligations
RPRC	Regional Pant Resource Centres
RUSA	Rashtriya Uchchatar Siksha Abhiyan
SAACAR	Single Window Application Atrocity Compensation Assistance and Relief
SAMS	Student Academic Management System
SBM-G	Swachha Bharat Mission Gramin
SCRIPS	State Capital Region Improvement of Power System
SCSTRTI	Scheduled Tribes Research and Training Institute
SLDC	State Load Dispatch Centre
SDC	Skill Development Centres
SDEC	Skill Development Extension Centres
SDG	Sustainable Development Goal
SEC-LAN	Odisha Secretariat Network
SEEI	State Energy Efficiency Index
SEZ	Special Economic Zones
SFSS	State Food Security Scheme
SGST	State Goods & Services Tax
SHG	Self-Help Group
SIDAC	State Institute for Development of Arts & Crafts
SIR	Special Investment Region
SLBC	State Level Bankers' Committee
SLDC	State Load Despatch Centre
SLSWCA	Single Window Clearance Authority
SNP	Supplementary Nutrition Programme
SONTR	State's Own Non-Tax Revenue
SOTR	State's Own-Tax Revenue
SPDP	Social Protection Delivery Platform
SPINFED	Spining Mills Federation Limited
SPMG	State Projects Management Group
SRS	Sample Registration System
SSEPD	Social Security and Empowerment of Persons with Disabilities
SSI	Small Scale Industry
STP	Software Technology Park
STU	State Transmission Utility
SUDA	The State Urban Development Agency
SUMAN	Surakshit Matrutva Aaswasan
SUY	Silpi Unnati Yojana
SWM	Solid Waste Management
TFIIP	Targeted Financial Inclusion Intervention Programme
TFR	Total Fertility Rate
TIFMS	Telecom Infrastructure Facilitation and Management System
TSP	Tribal Sub Plan
TSSEZ	Tata Steel Special Economic Zone
TVET	Technical and Vocational Education and Training
UDISE	Unified District Information System for Education
UNCTAD	United Nations Conference on Trade and Development
USD	United States Dollar
VAT	Value Added Tax
WATCO	Water Corporation of Odisha
WFP	World Food Program
WHO	World Health Organization
WPG	Women Producer Groups
WSC	World Skill Center
WSHG	Women's Self-Help Groups
ZED	Zero Defect Zero Effect

CHAPTER

1

STATE OF THE ECONOMY: A MACRO VIEW

ABSTRACT

The economy of Odisha is estimated to be approximately INR 8.3 lakh crore (which is equivalent to ~USD 100 billion). In comparison to 17 major states in India, Odisha holds 13th rank in the preceding year, 2022-23 for which data is available for all major states. The economy is estimated to grow at 8.5 per cent in 2023-24. In the same year, the industrial sector grew at 8.7 percent, while agriculture and allied sector and services sector grew at 3.5 per cent and 9.2 percent respectively.

In 2023-24, Agriculture and allied sector contributed 20.4 per cent of Gross State Value Added (GSVA), industry sector contributed 43.3 per cent and services sector contributed remaining 36.3 per cent of GSVA. In comparison, services sector constitutes greater share in national economy (55 per cent) in 2023-24. This indicates that transition to high-value sectors, especially service sector could accelerate per-capita income.

Agriculture and allied sector serves as a primary source of livelihood to substantial proportion of Odisha's population, with over 48 per cent of workforce dependent on agriculture and allied sector in 2022-23. The Sector also stimulates overall economy through induced consumption channel. With more than 80 per cent of population residing in rural areas where agriculture is the principal source of income, consumption demand in rural areas get positively impacted by higher agricultural growth. To enhance the resilience and diversification of the agriculture and allied sector, a greater emphasis on livestock, horticulture, and fisheries is necessary. Sector-specific interventions, such as improving marketing infrastructure, irrigation facilities, and timely availability of seeds, are crucial for sustained growth in agriculture and allied sector.

Given rich mineral base, mining sector in Odisha contributes significantly to the State economy directly as well as indirectly through strong mineral based manufacturing. Industrial sector has been driver of growth in the past. In 2021-22, more than two third of Gross value added in organized manufacturing sector was concentrated in 'basic metals'. Diversification and value creation are essential for sustained growth acceleration in the industry sector in the medium-term.

The service sector's share in Odisha's economy corresponds with the state's current per-capita income level. The IT/ITeS, financial services, and tourism sector hold considerable growth potential. The capital city, Bhubaneswar, is evolving as a promising hub for IT/ITeS services. Odisha's diverse tourism options, coupled with investments in infrastructure, development of skilled workforce, and tourism marketing, can propel tourist footfalls in the State. Despite low bank branch penetration, integration of financial services with technology (Fintech), supported by financial and digital literacy initiatives, can enhance the consumption of financial services.

In the fiscal year 2022-23, merchandise exports from Odisha reached nearly INR 90 thousand crore, ranking the state 10th among the 17 major states, with a 2.5 percent share of the national total. Dominated by metallurgical products and minerals, there is a strategic need for the state to capture a larger share of the production value chain and diversify its export basket. Odisha's structural strengths, including its rich mineral resources, forest cover, large working-age population, stable finances, extensive coastline, and adequate power and water supply, are well-positioned to support sustained growth in the forthcoming years.

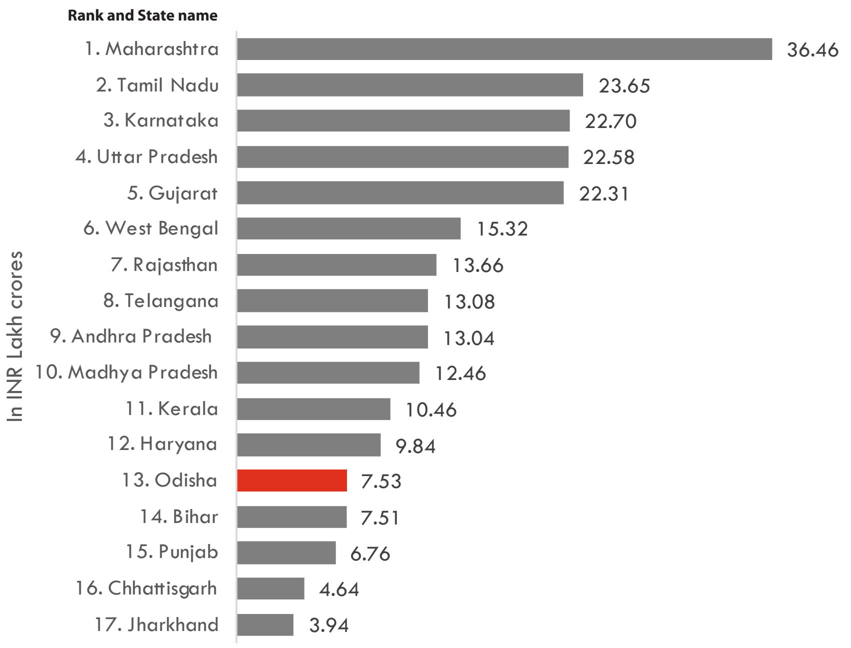
1.1 Introduction

India is one of the fastest growing economies in the world. As per International Monetary Fund[1] (IMF), India is world's fifth largest economy (2023). India's rapid growth is witnessed across sectors registering a growth rate of 8.2 per cent in 2023-24 (Provisional Estimates (PE)). India's growth is propelled by the growth witnessed across States and UTs. In the last 10 years (2013-14 to 2022-23), the average growth (CAGR) experienced by the 17 major states[2] is 6 per cent. India is on its trajectory to be a 'Viksit Bharat' where the prosperity is envisioned to reach across the length and breadth of the country. Odisha's economy has recovered well from the slump of the COVID-19 and witnessed growth across sectors.

1.2 Economic Growth

In 2023-24 (Advance estimates (AE)), size of the Odisha economy is estimated to be INR 8.3 lakh crore, which is nearly USD 100 billion. Comparable data for 2023-24 for all 17 major states is not available. In the preceding year, i.e., 2022-23, in comparison with 17 major states, Odisha ranked 13th as shown in Figure 1.1.

Figure 1.1 | Gross State Domestic Product at Current prices – Odisha and other 16 major states, 2022-23



Source: National Accounts Division, MoSPI, Government of India, and Economic Survey of Maharashtra, 2023-24, Government of Maharashtra

Size of the economy matters for multiple reasons. Economy size determines the ability of State to provide better standard of living to its population, strengthens State's capacity to raise funds from the market for development, reflects resilience of the State to various shocks, and boost attractiveness to the investors. In 2023-24, the State is estimated to grow at 8.5 per cent, higher than preceding year (2022-23) growth of 7.9 per cent. Since 2021-22, the economy is growing consistently at rate higher than long-term average (2012-13 to 2023-24). In Table 1.1, a broad overview of the economy is provided.

[1] *World Economic Outlook, April 2024, International Monetary Fund*

[2] *Includes Andhra Pradesh, Bihar, Chhattisgarh, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttar Pradesh, and West Bengal*

Table 1.1 | Key Indicators of Odisha

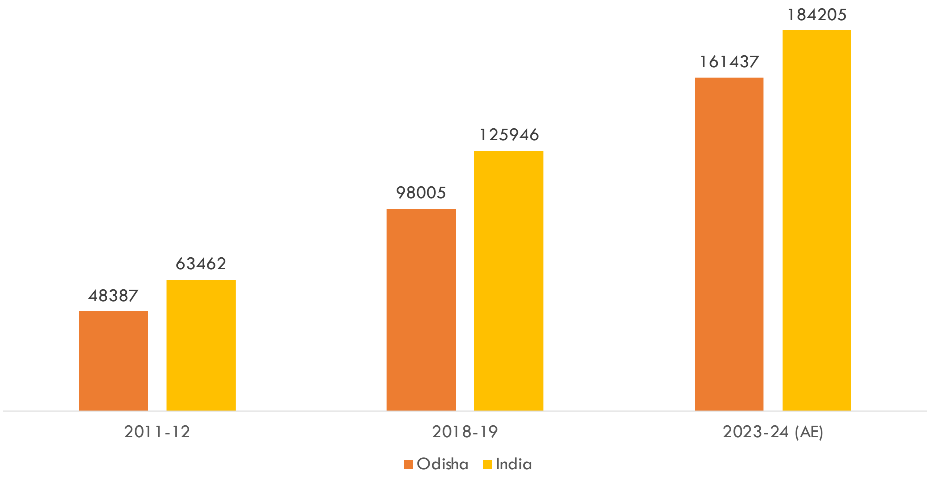
Indicators	Units	2019-20	2020-21	2021-22	2022-23	2023-24
1. GSDP						
GSDP at current prices	INR crore	537,502	540,150	662,886	753,177	832,790 (AE)
GSDP Growth (at constant prices)	Percent	2.8	-2.1	10.6	7.9	8.5
2. Per-capita income						
Per-capita income at current prices	INR	1,04,633	1,03,203	1,26,437	1,45,202	1,61,437
Growth in PCI at current prices	Percent	6.8	-1.4	22.5	14.8	11.2
3. Employment						
Total Workforce (15+ age)#	crore	1.78	1.89	1.80	2.05	NA
Growth in total workforce	Percent	16.2	6.5	-5.0	14	NA
4. Prices						
Growth in CPI-Combined	Percent	4.6	7.1	3.7	6	6.5
5. Exports						
Total Exports	crore	49,615	77,596	127,232	89,774	98,792
Growth in Total Exports	Percent	12.5	56.4	64	-29.4	10
6. Fiscal Performance^						
Total Revenues (A)**	INR crore	101,855	105,071	154,626	164,166	185,370
Total Expenditure (B)*	INR crore	120,674	114,857	133,999	185,999	211,214
Fiscal Deficit (A-B)	INR crore	-18,819	-9,786	20,627	-21,833	-25,844
	% of GSDP	-3.5	-1.8	3.1	-2.9	-3.1
7. Population						
Total Population	crore	4.52	4.56	4.59	4.62	4.64

*Note: ^(i) Positive (+)/Negative (-) sign indicates surplus and deficit respectively, (ii) For Fiscal performance, 2022-23 are revised estimates and 2023-24 are budget estimates, *Total expenditure includes revenue expenditure and capital outlay and gross lending to local governments, # Total workforce is defined in terms of usual principal and subsidiary status. **Total revenue implies revenue receipts plus non-debt capital receipts (recovery of loans and advances). NA= Not Available, Sources: Directorate of Economics and Statistics, Government of Odisha; Periodic Labour Force Survey, MoSPI, Government of India; Dashboard, Ministry of Commerce; Annual Budget, Government of Odisha,*

1.3 Per-capita income

In 2023-24, per-capita income of Odisha was INR 1,61,437 in nominal terms. Between 2011-12 and 2023-24 (A), the per-capita income of Odisha increased from INR 48,387 to INR 1,61,437, growing at a CAGR of 10.6 per cent (Figure 1.2). Although the gap between Odisha and India's per-capita income has reduced, in 2023-24, Odisha's per-capita income was 12.4 per cent lower than India's per-capita income.

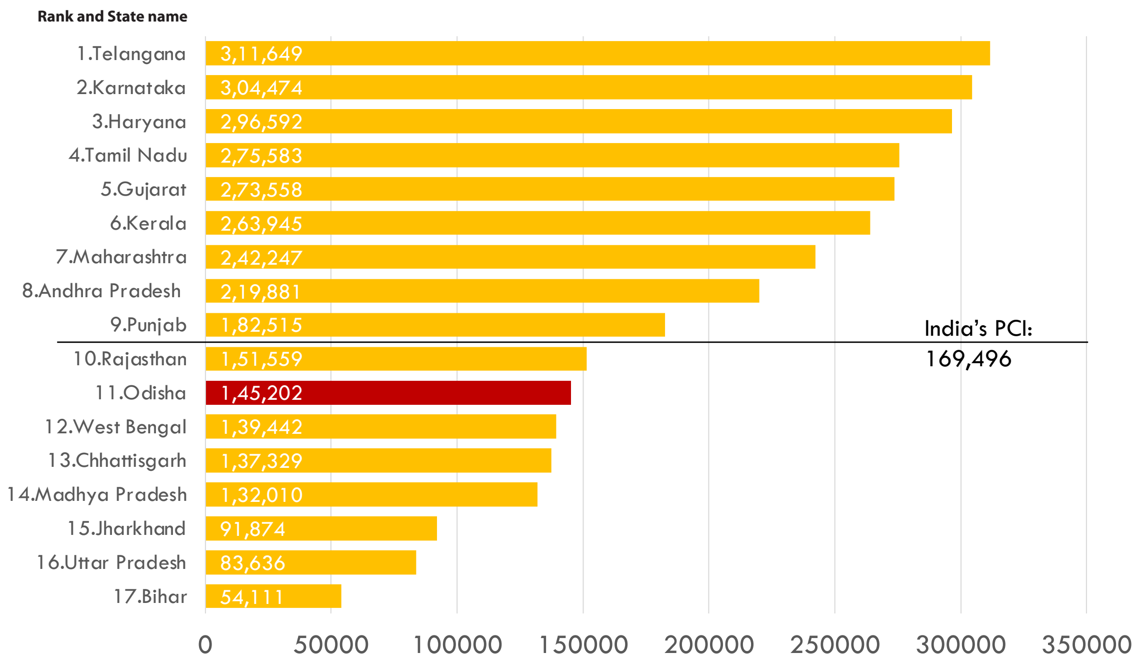
Figure 1.2 | Per-capita income – Odisha and India, at current prices, (IN INR)



Source: Directorate of Economics and Statistics, Government of Odisha and National Accounts Division, MoSPI, Government of India

Odisha is in third quartile of per-capita income among major states, ranking 11th in 2022-23. Telangana stands in the first position in terms of per-capita income across all major states with INR 3,11,649, followed by Karnataka (INR 3,04,474) and Haryana (INR 2,96,592) in 2022-23.

Figure 1.3 | Per-capita income of major states - 2022-23 (Previous year) at current prices, (IN INR)



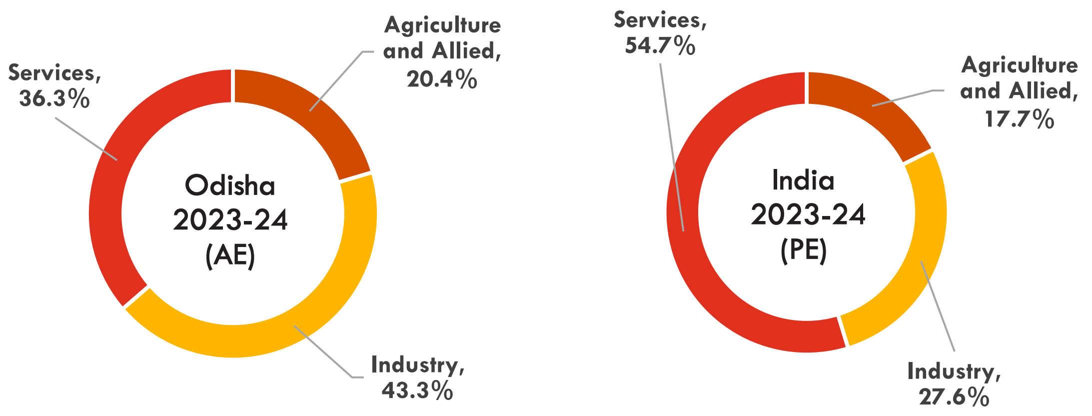
Source: Directorate of Economics and Statistics, Government of Odisha, and Economic Survey of Maharashtra, 2023-24, Government of Maharashtra

1.4 Sectoral composition and growth

Sectoral Composition

With the size of nearly INR 1.5 lakh crore in 2023-24 (AE), the Agriculture and Allied sector contributes around 20.4 per cent to State GVA. Industry sector holds a prominent position in Odisha economy, contributes INR 3.1 lakh crore with a share of 43.3 per cent in State GVA. Services sector contribution to State GVA in 2023-24 (AE) is approximately INR 2.6 lakh crore with a share of 36.3 per cent. The sectoral composition of Odisha in 2023-24 (AE) is shown in Figure 1.4.

Figure 1.4 | Sectoral Composition at current prices, Odisha and India, 2023-24



Note: Odisha's GSDP estimates are first advance estimates and India's GDP estimates are provisional estimates.
Source: Directorate of Economics and Statistics, Government of Odisha; National Accounts, MoSPI, Government of India

On the other hand, at All-India level, service sector constitute a relatively large share in India GVA. At all-India level, share of services sector was nearly 55 per cent as compared with 36 per cent in Odisha.

Within agriculture and allied sectors, crop sector holds the major share. The share of crop sector in State GVA is 12 per cent. This is followed by livestock, forestry & logging and fishing & aquaculture, which holds a GSVA share of 3.4 per cent, 2.8 per cent and 2.2 per cent respectively in 2023-24 (AE).

Within industry sector, manufacturing contributes the highest share of 23.3 per cent to State GSVA, followed by mining and quarrying at 9.4 per cent, construction at 6.9 per cent and electricity and other utilities at 3.6 per cent in 2023-24 (AE).

Trade, repair, hotels and restaurants are the major contributors in services sector with a share of 8.5 per cent in the overall GSVA of the State. This is followed by other services, which includes education, healthcare services among others (7.9 per cent), transport, storage, communication & services related to broadcasting (6.7 per cent), real estate, ownership of dwelling & professional services (5.8 per cent), public administration (4.5 per cent), and financial services (2.9 per cent). Sectoral & sub-sectoral GSVA and shares in Odisha for 2023-24 (AE) is presented in Table 1.2.

Table 1.2 Sectoral and sub-sectoral GSVA and shares, 2023-24 (AE)

Sector/Sub-sector	GSVA in INR crore	Share in GSVA
1. Agriculture and Allied	**147,978**	**20.4%**
1.1. Crops	87,235	12.0%
1.2. Livestock	24,649	3.4%
1.3. Forestry & logging	20,350	2.8%
1.4. Fishing & aquaculture	15,744	2.2%
2. Industry	**313,528**	**43.3%**
2.1. Mining and quarrying	68,291	9.4%
2.2. Manufacturing	168,917	23.3%
2.3. Electricity, gas, water supply & other utility services	26,176	3.6%
2.4. Construction	50,145	6.9%
3. Services	**263,403**	**36.3%**
3.1. Trade, repair, hotels and restaurants	61,496	8.5%
3.2. Transport, storage, communication & services related to broadcasting	48,552	6.7%
3.3. Financial Services	20,899	2.9%
3.4. Real estate, ownership of dwelling & professional services	42,217	5.8%
3.5. Public administration	32,823	4.5%
3.6. Other services	57,416	7.9%
Gross State Value Added	**7,24,908**	**100%**

Source: Directorate of Economics and Statistics, Government of Odisha

Sectoral Growth

As per advance estimate, agriculture, and allied sectors GVA in Odisha grew at 3.5 per cent in 2023-24. This is despite deficient rainfall in 2023-24 because of El Nino effects in the State. From 2019-20 to 2023-24, agriculture and allied sector in Odisha grew at a CAGR of 5.8 per cent.

Industry sector in Odisha grew at 8.7 per cent in 2023-24 (AE) over 2022-23. Owing to economic slowdown due to COVID-19, in 2019-20, the industry GVA in Odisha contracted by 6.9 per cent. However, the sector rebounded strongly after that, registering strong growth rate. Between 2019-20 and 2023-24, industry sector in Odisha grew at a CAGR of 8.5 per cent.

In terms of services GSVA, Odisha is expected to grow at 9.2 per cent, in 2023-24 (AE). This is on account of a nearly 8 per cent growth in 2022-23 (1st RE) and 7.3 per cent growth in 2021-22 (2nd RE). Although, services in Odisha are the worst hit sector during the COVID pandemic owing to its contact intensiveness, the sector witnessed a robust recovery crossing the pre-pandemic level of 2019-20 in terms of GVA in real terms by 2022-23. Table 1.3 exhibits the sectoral growth of Odisha in all three major sectors in the last five years – 2019-20 to 2023-24.

Table 1.3 Sectoral growth of GSVA in constant prises last 5 years - Odisha

Sectors	2019-20	2020-21	2021-22	2022-23	2023-24
Agriculture & allied	13.5%	7.3%	3.5%	8.9%	3.5%
Industry	-6.9%	5.9%	12.3%	7.2%	8.7%
Services	7.3%	-11.4%	7.3%	7.5%	9.2%

Source: Directorate of Economics and Statistics, Government of Odisha

1.5 Agriculture and Allied Sector

Agriculture and allied sector is a source of livelihood to a large proportion of population in Odisha. Nearly 48 per cent of workforce is directly dependent on Agriculture and allied sector. Although the sector contributes 20.4 per cent to total GSVA, the sector performance drives consumer demand in the economy through the induced consumption channel and growth of other sectors by supplying and drawing resources.

Agriculture and allied sector of Odisha is skewed towards cropping sector. In 2022-23, share of livestock in total GSVA of Agriculture and Allied sector for Odisha was 17.4 per cent in comparison with 30 per cent in case of India. Similarly, there are several states with higher share of fisheries sector in total agriculture and allied sector. As an example, bordering state, Andhra Pradesh generates nearly 22.8 per cent of gross value added for agriculture and allied sector from fishing and aquaculture. There is a need to transition towards allied sectors (Livestock, horticulture and fishing) for sustainable income for farming community.

Overtime, the foodgrain production has increased in Odisha at a rate higher than population growth. But foodgrain productivity is on the lower side. Odisha's rank was 13th among 17 major states in foodgrain productivity (kg/ha) in 2021-22. In the fisheries sector, production of fish has gone up from 4.7 lakh MT in 2014-15 to 10.5 lakh MT in 2022-23. But Odisha needs to accelerate fish production further. In 2021-22, Odisha's fish production was 9.9 lakh MT as against 18.4 lakh MT in West Bengal and 48.1 lakh MT in case of Andhra Pradesh.

1.6 Industry

Industry sector has played an important role in the development journeys of all major advanced economies. As countries grow, demand for industrial goods increase which increases demand for labour in industrial sector. With technological advancement, agriculture sector is able to produce with less labour thus creates a scenario of surplus labour, which can be absorbed in the industrial sector. Odisha too has seen such transformation. Share of industrial sector in total workforce in rural areas has increased from 17.5 per cent in 2004-05 to 25.2 per cent in 2022-23. Similarly, in urban areas, the share of industrial sector in total workforce has increased from 26.6 per cent in 2004-05 to 29.6 per cent in 2022-23.

Given rich mineral base, Industry sector in Odisha is a key driver of growth and prosperity in the State. The sector contributes 43.3 per cent of Gross State Value Added (GVA) in 2023-24. Within industry, manufacturing contributes the highest share of 54 per cent to the industry GVA, followed by mining and quarrying at 22 per cent, construction at 16 per cent and electricity and other utilities at 8 per cent in 2023-24.

Odisha contributed more than 40 per cent of India's mineral production in 2022-23. Some of the critical minerals from the State serves as essential inputs in sectors such as power, automobiles, construction, transportation. Odisha contributes 55 per cent of iron ore production in India which is used to produce steel and other essential products. Similarly, nearly one-fourth of India's coal is produced in Odisha.

The industrial sector is estimated to grow at 8.7 per cent in 2023-24. At All-India level, industry sector grew at a higher rate of 9.5 per cent. In Odisha, in 2021-22, nearly 78 per cent of organized manufacturing value added was attributed to 'Basic metals'. Odisha can increase its share in more valued added goods and in the domestic and global value chain. For example, State produces steel. It can further attract investment for production of bodies, chassis and engines for cars. State plays limited role in these downstream value chain functions which constitute greater share in total final value added. In the recent past, many of investors in non-mineral and other emerging sectors have expressed their commitment to invest or commenced operations. Some of the sectors include green hydrogen, technical textiles, food processing, chemicals, metal downstream and ancillary.

1.7 Services Sector

In case of majority of advanced economies globally, service sector is the leading sector in overall economy and also generates maximum employment. As economies grow, education level improves which is able to meet demand for skilled labor in the services sector. Similarly, with increased income level, demand for services increases at a faster rate than for goods. This leads to service sector playing a dominant role in the economy both in terms of GDP contribution as well as employment creation.

The share of service sector in Odisha stood at 36.3 per cent in 2023-24 (AE) which is in line with its current level of per-capita income. As an example, Odisha's per-capita income in 2021-22 was INR 1.3 lakhs and share of services sector was 35 per cent in GSVA. In case of states with higher services sector share such as Tamil Nadu, Karnataka, Haryana, at similar per-capita income (i.e. INR 1.3 lakhs) in the past, the average share of services sector in GSVA was also close to 39 per cent. Currently, the share of services sector in the economies in these states is more than 50 per cent. There is a need to boost services sector in Odisha given higher gross value added per worker. However, within the service sector also, what is the need of the hour is to increase the share in value added of the new age services sector which can offer employment to Odisha's skilled workforce as well as to semi-skilled and women workforce.

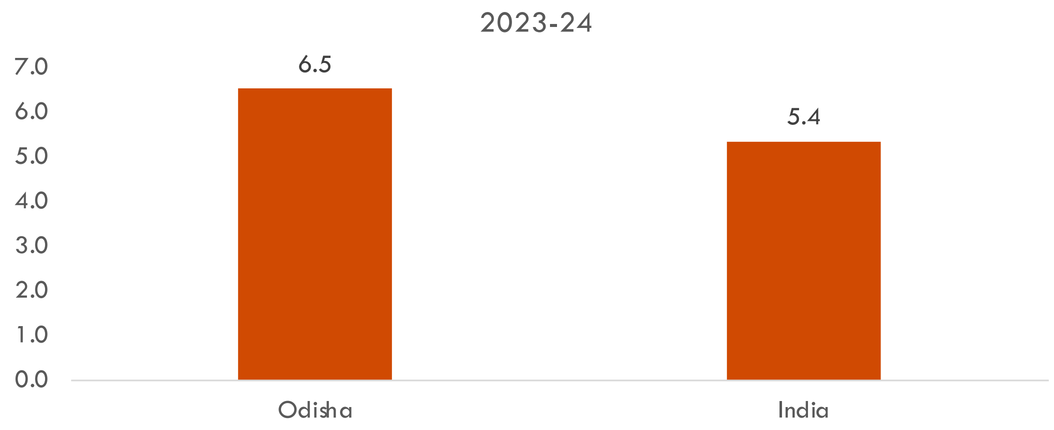
1.8 Prices

At All-India level, inflation in 2023-24 was 5.4 per cent (Figure 1.5). Rising prices of primary goods have hold the inflation at a higher level besides some imported inflation due to global supply shocks in select commodities.

Inflation in India is typically a supply side phenomenon and Central Bank largely manages the second-round impact. On the supply side, the key commodity prices are governed by international price movement like the price of Oil which is largely imported. The primary articles like agricultural items, food items etc. are largely impacted by monsoon, natural calamities and crop losses due to exogenous factors. With respect to inflation management, typically, states can play a role of easing the supply constraint at the local level.

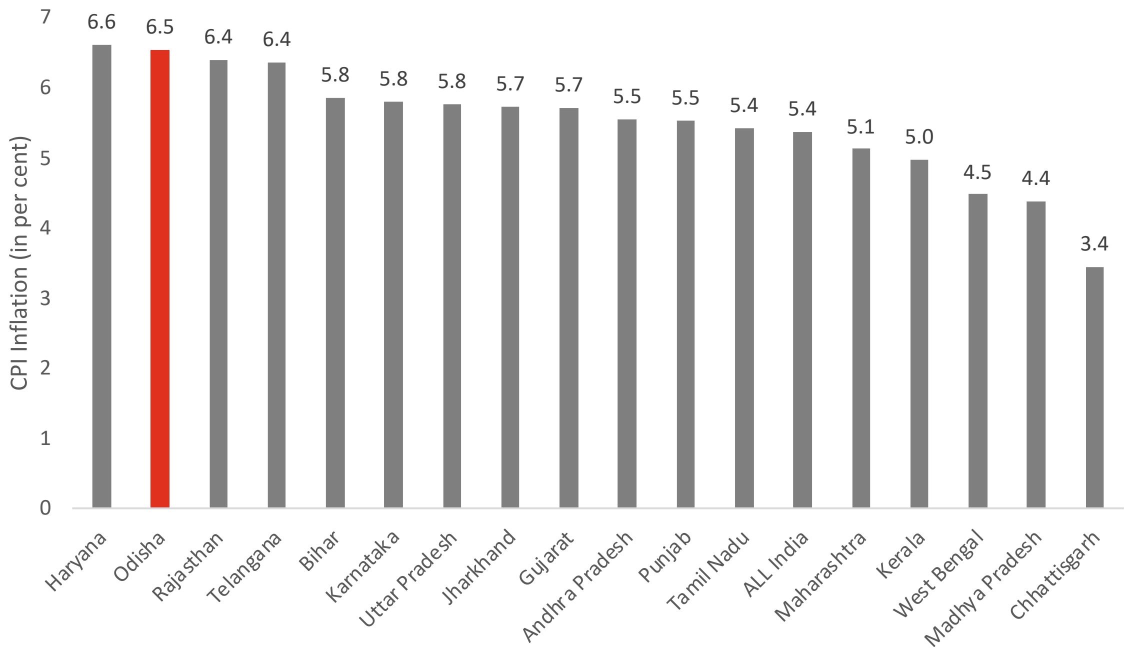
In 2023-24, Inflation in Odisha was 6.5 per cent higher than All-India average of 5.4 per cent (Figure 1.5). In comparison with 17 major states as well, the inflation in Odisha was second highest. Haryana reported inflation of 6.6 per cent higher than Odisha. Other 15 major states reported inflation lower than Odisha.

Figure 1.5 | Inflation in Odisha and India in 2023-24, in per cent (CPI-Combined)



Source: CPI Division, MoSPI, Government of India

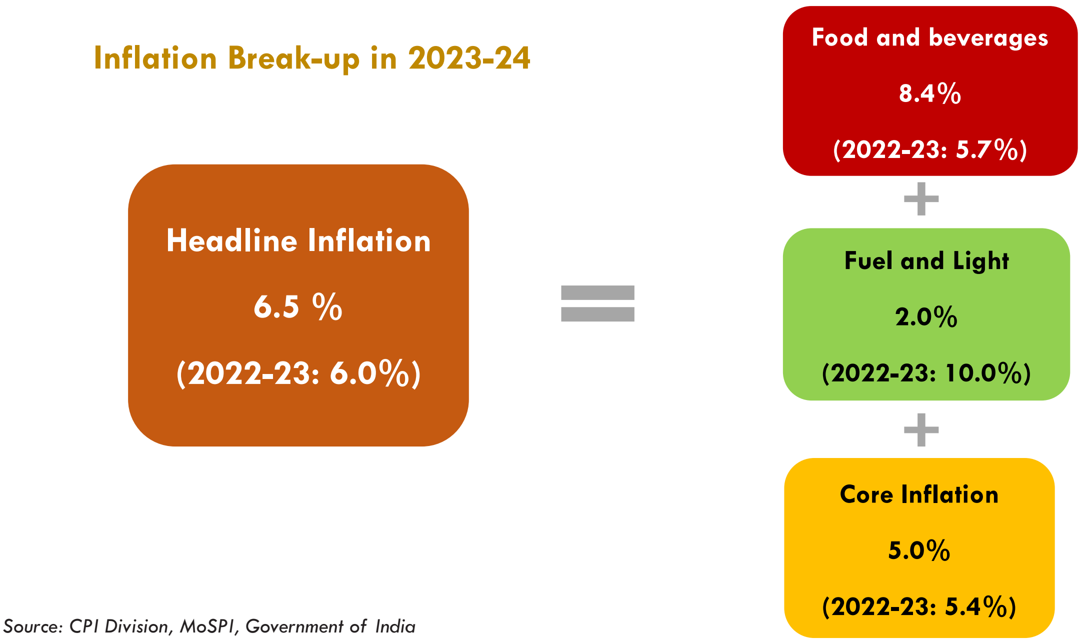
Figure 1.6 | Inflation in 2023-24 among 17 major states (CPI-Combined), 2023-24



Source: CPI Division, MoSPI, Government of India

The increase in inflation in Odisha is largely driven by price movement in primary goods, i.e. food and beverages. Core inflation (excluding food and beverages and fuel and light) has, on the other hand, has moved downward from 5.4 per cent in 2022-23 to 5.0 per cent in 2023-24 (Figure 1.7).

Figure 1.7 Category wise inflation – Odisha (y-o-y) in 2023-24

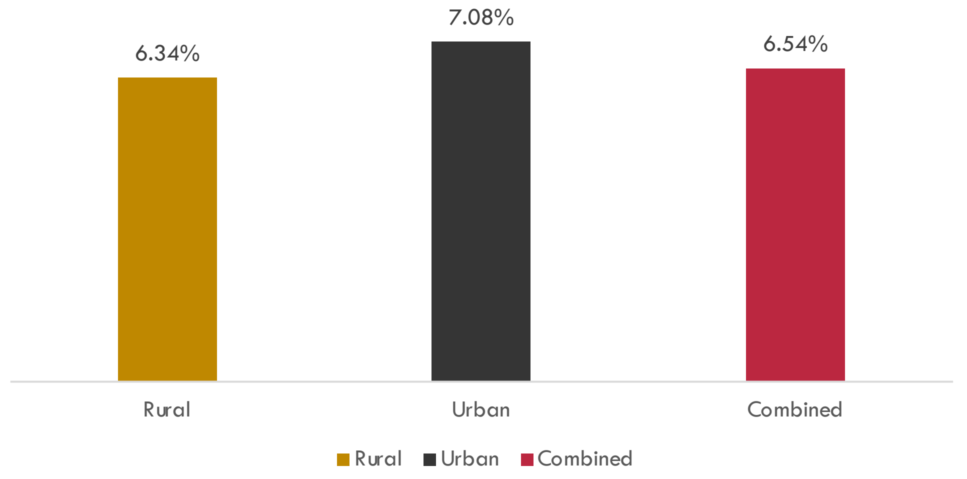


Source: CPI Division, MoSPI, Government of India

In cereals and products, vegetables, pulses, and spices, in 2023-24, inflation was 14.2 per cent, 15.8 per cent, 17.4 per cent and 25.2 per cent respectively.

Odisha reports lower inflation in rural areas than urban areas. In rural areas, in 2023-24, inflation was 6.3 per cent lower than 7.1 per cent in urban areas (Figure 1.8). More than 80 per cent of population in Odisha reside in rural areas. Lower inflation in rural areas relative to urban areas implies inflation impact has been relatively moderate on majority of the population.

Figure 1.8 Rural-Urban Inflation, Odisha, 2023-24



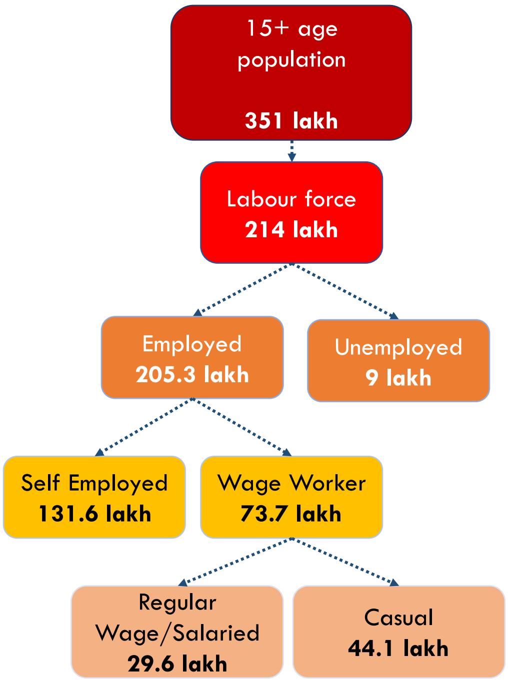
Source: CPI Division, MoSPI, Government of India

Reserve Bank of India is positive about inflation outlook. As per the April 2024 Monetary Policy Statement, inflation in 2024-25 is expected to be 4.5 per cent moderating from 5.4 per cent in 2023-24. This is due to (i) expected record rabi wheat production in 2023-24 and (ii) normal monsoon forecasts for Kharif season despite presence of risks such as climate shocks and rising temperatures.

1.9 Employment

A dendo-diagram of the employment scenario of Odisha is shown in Figure 1.9 for 2022-23. At an aggregate level, Odisha has nearly 351 lakh population in the age group of 15 and above, out of which 214 lakh individuals are part of the labour force. This implies either they are working already or seeking work. Out of the total labor force, almost 96 per cent (205.3 lakh) are employed. Out of the total employed labour force (in the age group of 15+), 64 per cent (131.6 lakh) are self-employed and the remaining 36 per cent are either regular wage/salaried (29.6 lakh) workers or casual workers (44.1 lakh).

Figure 1.9 | Rural-Urban Inflation, Odisha, 2023-24



Note: Estimate using Periodic Labour Force Survey, 2022-23 after adjusting for population based on MoHFW projection,

Source: Periodic Labour Force Survey, 2022-23, MoSPI, Government of India and Ministry of Health and Family Welfare, Government of India

Overtime, the size of total workforce in Odisha increased from 145.5 lakh in 2017-18 to 205.3 lakh in 2022-23. Agriculture and allied sectors constituted 48 per cent of the State workforce, followed by service sector (26 per cent) and industry sector (25.8 per cent) in 2022-23. Total workforce in agriculture and allied sectors increased from 71 lakh in 2017-18 to 98.7 lakh in 2022-23, growing at a CAGR of 6.8 per cent. However, the share of agriculture in total workforce of the State has declined by 0.7 per cent over these years. Workforce in industry sector increased from 38.4 lakh in 2017-18 to 53.0 lakh in 2022-23, at CAGR of 6.7 per cent. Similarly, services sector in the State absorbed an additional workforce of 17.5 lakhs between this period, growing at a CAGR of 8.2 per cent.

In the last six years – between 2017-18 and 2022-23, share of self-employed workers in the State has risen by 6.7 percentage points, while that of causal worker and salaried worker was reduced by 5.7 percentage points and 1.0 percentage points respectively.

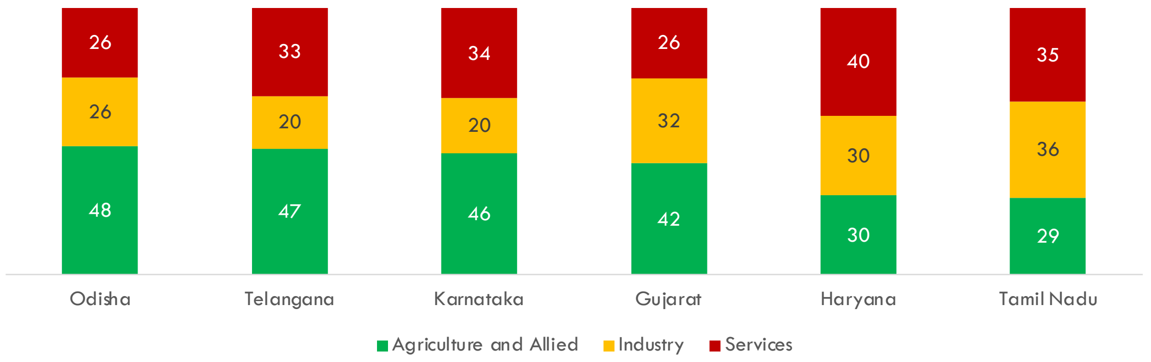
Table 1.4 | Trend in workforce (15+ age)

Indicator	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Total Workforce (in lakh), 15+ age	**145.5**	**153.2**	**178.1**	**189.8**	**180.5**	**205.3**
By sector						
	Share					
Agriculture	48.8%	44.1%	48.3%	46.8%	45.6%	48.1%
Industry	26.4%	29.5%	26.9%	28.5%	27.2%	25.8%
Services	24.8%	26.4%	24.8%	24.7%	27.2%	26.1%
By type						
	Share					
Casual worker	27.2%	27.1%	25.9%	25.8%	24.6%	21.5%
Regular Wage/Salaried	15.4%	16%	14.9%	14.7%	16.5%	14.4%
Self-employed	57.4%	56.9%	59.3%	59.5%	58.8%	64.1%

Source: Periodic Labor Force Survey, 2017-18, 2018-19, 2019-20, 2020-21, 2021-22, 2022-23, MoSPI, Government of India

In comparison with top-five per-capita income states, Odisha has relatively lower share of workforce in services sector which generates higher gross value added per worker. As an example, in Telangana, share of services sector in total workforce was 33 per cent, in Karnataka, 34 per cent, in Haryana 40 per cent and in Tamil Nadu 35 per cent. Only Gujarat has similar share of workforce in service sector but has higher share of workforce in the industry sector.

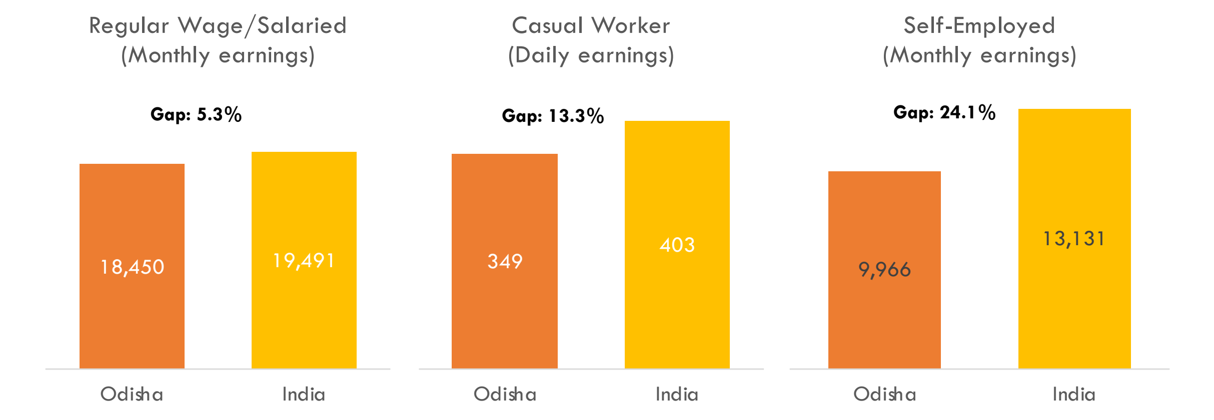
Figure 1.10 | Workforce distribution in Odisha and top-five per-capita income major states, 2022-23, (In Per cent)



Source: Periodic Labor force survey, 2022-23, MoSPI, Government of India

Sectoral composition of workforce also reflect difference in earnings levels in Odisha in comparison with All-India average. Among the three types of employment, i.e. self-employed, casual worker and regular wage/salaried, on an average in 2022-23, workers in Odisha earned less than All-India average. The income gap for three types of employment is shown in Figure 1.11.

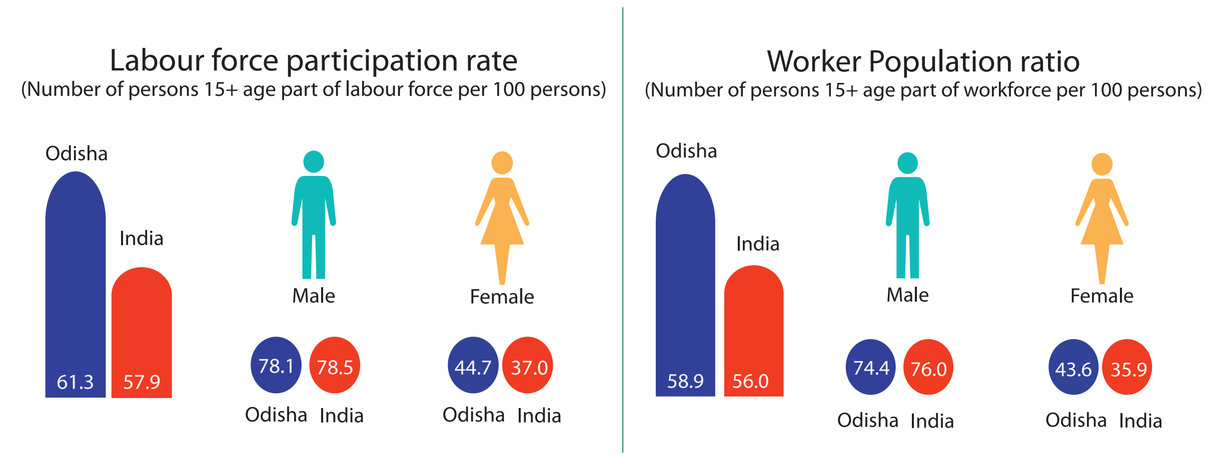
Figure 1.11 Workforce distribution in Odisha and top-five per-capita income major states, 2022-23



Source: Periodic Labor Force Survey, 2022-23, MoSPI, Government of India

Odisha has shown improvement in key employment indicators, particularly in terms of labor force participation rate and worker population ratio, especially among women. At an aggregate level, Odisha has a higher number of individuals in the labor force per 100 persons in the age group of 15 and above compared to the All-India average. Similarly, there are more persons working per 100 persons in the age group of 15 and above in Odisha. The primary factor contributing to the improved employment situation in Odisha is higher participation of women in labor force. In 2022-23, Odisha recorded one of the highest female labor force participation rates at 44.7 per cent. Further, worker population ratio for women is considerably higher in the State.

Figure 1.12 Key employment indicators, Odisha and India, 2022-23



Source: Periodic Labor Force Survey, 2022-23, MoSPI, Government of India

1.10 Fiscal Developments

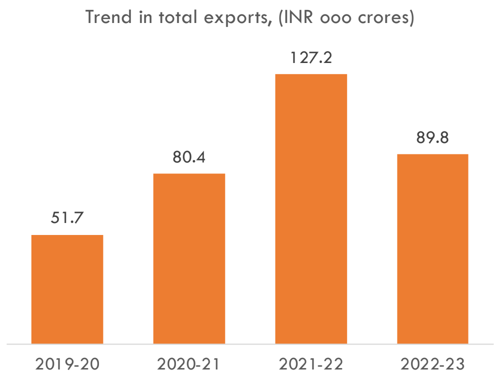
Odisha is maintaining fiscal discipline over a long-term horizon while directing public resources towards building infrastructure development and delivering essential welfare benefits to the vulnerable. In 2023-24, budget size of Government of Odisha was INR 2.3 lakh crore. The state has seen growth in total revenue receipts supported by buoyant tax and in particular non-tax revenues. State's own tax revenues are buoyant with tax buoyancy of more than one (1.04). This implies that if GSDP grows at 10 per cent then state's own tax revenues would grow at 10.4 per cent. Mineral royalties, although volatile in nature, has provided further comfort to the state finances. Recognizing the vulnerability of mineral revenues to international commodity prices, a budget stabilization fund is in place to perform as a buffer during revenue shortfall. On the expenditure side, nearly 70 per cent of budget is directed towards development spending and nearly 21 per cent towards non-development spending and remaining towards grants to local bodies and repayment of debt. A substantial portion of development spending is allocated towards education (constituting nearly 17.2 per cent of total development expenditure) followed by transport, health, rural development, agriculture, irrigation and water and sanitation. This is in line with present development needs of the State.

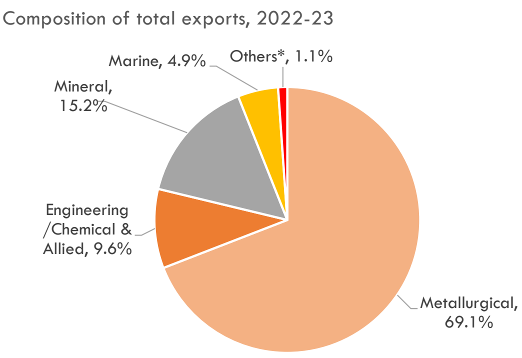
1.11 Exports

The total merchandise exports of Odisha increased from INR 51.7 thousand crore in 2019-20 to INR 89.8 thousand crore in 2022-23, growing at a CAGR of 20.2 per cent. However, between 2021-22 and 2022-23, merchandise exports of Odisha declined by INR 37.4 thousand crore (Figure 1.13). The State is ranked 10th among major states in terms of merchandise exports (by values) with an All-India share of 2.5 per cent in 2022-23. The first three states in terms of highest share of merchandise exports from India includes Gujarat (33.1 per cent), Maharashtra (16.1 per cent) and Tamil Nadu (9.0 per cent).

Major contributors to State exports are metallurgical products (69.1 per cent), minerals (15.2 per cent), and engineering, chemical and allied products (9.6 per cent). Other exports include marine products (4.9 per cent) and textiles (0.6 per cent) (Figure 1.13). Between 2019-20 and 2022-23, the share of metallurgical products has increased by 21 percentage points, from 48 per cent to 69 per cent. This indicates concentration in the export basket. There is need to diversify export portfolio to downstream and ancillary industries, encouraging agriculture and fisheries exports, improving multi-modal connectivity imperatives, increasing cargo handling capacity at Bhubaneswar airport, and promote better market access for MSMEs, among others.

Figure 1.13 | Trend of exports from Odisha and composition (2022-23)





Source: Directorate of Export Promotion & Marketing (DEP&M), Government of Odisha

1.12 Conclusion

In 2023-24, Odisha was INR 8.3 lakh crore economy or equivalent to USD 100 billion. Among 17 major states, the State is ranked 13th in terms of economy size (2022-23). In terms of per-capita income, among the 17 major states, the State is ranked 11th in 2022-23 (for which data is available for all major states).

The State has potential to grow at higher rate on a medium-term basis. There are several growth opportunities which if tapped can move Odisha to a new growth path. Availability of critical minerals for future growth, long coastline, demographic dividend, water and power availability can enable growth in the future. State has several natural attractions and potential to attract tourists with different tastes and preferences. There is high expected return to investment in critical infrastructure development in state such as multi-modal logistics parks, ports, inland waterways, digital connectivity, rail connectivity, and port capacity. Industry-relevant skilling of workforce (especially female workforce) for emerging sectors can be instrumental in Odisha's economic transformation. State is also currently conducting growth diagnostic to identify barriers to growth and developing growth strategy to unleash growth across the regions of the State.

CHAPTER

2

FISCAL DEVELOPMENT AND MANAGEMENT

ABSTRACT

As per 2023-24 Budget estimate, the budget size (Total Expenditure) stood at INR 2.3 lakh crore. This is nearly 27 per cent of GSDP which reflects the importance of public expenditure in driving demand and economic growth in the economy.

On the revenue side, the state has seen growth in total revenue receipts supported by buoyant tax and non-tax revenues. Mineral royalties, although volatile in nature, has provided comfort to the state finances. Recognising, the vulnerability of mineral revenues to international commodity prices, a budget stabilization fund is in place to act as a buffer during revenue shortfall.

On the expenditure side, nearly 70 per cent of budget is directed towards development spending and nearly 21 per cent towards non-development spending and remaining towards grants to local bodies and repayment of debt. A substantial proportion of development spending is allocated towards education (constituting nearly 17.4 per cent of total development expenditure) followed by transport, health, rural development, agriculture, irrigation and water and sanitation. This is in sync with present development needs.

The Committed expenditure (comprising of salaries, interest payments and pension) has gone down from 68.4 percent in 2005-06 to 37.3 percent of revenue expenditure in 2023-24 Budget Estimate (BE). This implies that State now has more flexibility in allocating resources for various emerging priorities. The capital outlay, which is meant for physical asset creation, as per cent of GSDP ratio is nearly 6.2 per cent in 2023-24 BE as against 5.1 per cent in 2022-23 RE. In 2023-24 BE, roads and bridges, irrigation, special area programmes and water and sanitation are among the leading sectors attracting capital investment by the State.

Increasing revenue receipts and controlled committed expenditure has supported Odisha to keep the fiscal deficit within the prescribed limit under the Fiscal Responsibility and Budget Management (FRBM) Act since 2005-06. In 2023-24 BE, the fiscal deficit was budgeted at 3.1 percent of GSDP and revenue surplus of 3.2 per cent and debt stock of 13.55 per cent of GSDP. This implies that state is using borrowed funds to invest in infrastructure and other assets, thus enhancing the medium-term growth prospects.

2.1 Introduction

2.1.1 The fiscal health of any government determines its ability to direct public resources for the welfare of the population. States in India have a large responsibility which demands massive public expenditure . On the revenue side, tax revenues and non-tax revenues need to be raised to fund development spending needs while satisfying the principles of equity and efficiency. As government borrows resources from the market, government is mandated to repay with interest. Government needs to then allocate such borrowed resources for productive purposes so that borrowed resources are able to generate return (which could be in the form of GSDP growth) at least more than the interest to be paid.

2.1.2 Public expenditure management should be such that greater proportion of spending is directed towards development spending such as ensuring delivery of basic services (health, education, water, housing, roads, power etc.) to all and building requisite public infrastructure which is able to attract investors to produce, hire and sell in the State and enhances capability of stakeholders (farmers, MSMEs etc.) to be competitive.

2.1.3 In this chapter, a high-level overview of state's current fiscal landscape is provided, covering sources of revenues of the state, resource allocation, level of borrowing and various fiscal reforms undertaken to further boost fiscal management in the State.

2.2 Overview of Odisha Budget 2023-24

2.2.1 In 2023-24, Odisha budget size was nearly INR 2.3 lakh crore which is nearly 27.6 per cent of State economy. This reflects that government is a key stakeholder in the state economy in terms of driving demand, economic growth and prosperity for its population. Key fiscal indicators of the State for 2023-24 in given in Table 2.1.

Table 2.1 | Odisha Budget at glance, in INR Crores

#	Items	2023-24 BE	Distribution
	REVENUE SIDE		
A	Total Revenues (A.1+A.2+A.3)	2,30,000	100%
A.1	Revenue Receipts (1.1+1.2)	1,84,500	80.2%
1.1	Tax Revenue	99,251	43.2%
(a)	Own Tax Revenues	53,000	23.0%
(b)	Share in central taxes	46,251	20.1%
1.2	Non-tax revenue	85,249	37.1%
(a)	Of which mineral royalties	45,251	19.7%
(b)	Grants from the center	32,749	14.2%
A.2	Capital Receipts	45,500	19.8%
(a)	Non-debt capital receipts	870	0.4%
(b)	Debt receipts	33,630	14.6%

#	Items	2023-24 BE	Distribution
REVENUE SIDE			
(c)	Net Receipt from Public Account	11,000	4.8%
EXPENDITURE SIDE			
B	Total Expenditure (B1+B2+B3+B4)	2,30,000	100%
B.1	Revenue Expenditure	1,57,761	68.6%
(a)	Salary	31,587	13.7%
(b)	Interest	7,240	3.1%
(c)	Pension	19,979	8.7%
(d)	Other revenue expenditure	98,953	43.0%
B.2	Capital Outlay	51,683	22.5%
B.3	Gross lending	1,770	0.8%
B.4	Debt repayment	18,786	8.2%
C	**Key fiscal indicators**		
C.1	Fiscal Deficit (A.1+ A.2 (a)- B.1-B.2-B.3)*	-25,844	
	As % of GSDP (A)	**-3.1%**	
C.2	Revenue Deficit (A.1- B.1)*	26,739	
	As % of GSDP (A)	**3.2%**	
C.3	Primary Deficit*	-18,604	
	As % of GSDP (A)	**-2.2%**	
C.4	Debt Stock	1,12,882	
	As % of GSDP (A)	**13.6%**	

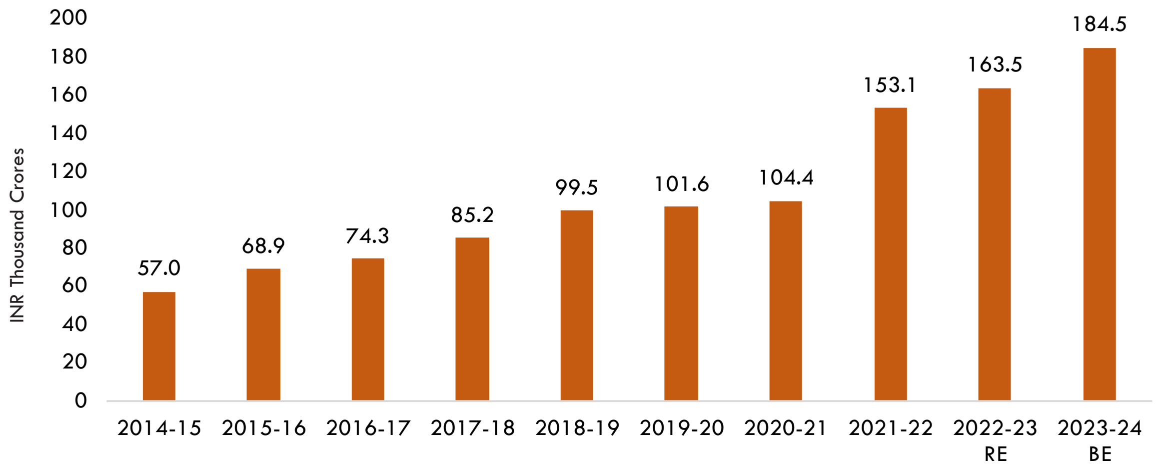
*Source: Odisha Budget Document 2023-24, (*negative number indicates deficit and positive indicates surplus)*

2.2.2 On the revenue side, State budgeted for nearly INR 1 lakh crore of tax revenues of which INR 53,000 crore through own source and rest nearly INR 46,251 crore from tax devolution transfers under Article 280(3a) of the Constitution of India. Similarly, State budgeted for nearly INR 85,249 crore of non-tax revenues of which nearly mineral royalties constituted INR 45,251 crore and grants from centre amounting INR 32,749 crore. On the expenditure side, out of total budget of INR 2.3 lakh crore, revenue expenditure constituted nearly INR 1.5 lakh crore (68 per cent) while capital outlay nearly INR 51,683 crore (22.5 per cent). The state has managed its finances keeping the fiscal deficit within the limits prescribed in Fiscal Responsibility and Budget Management Act. Debt stock as per cent of GSDP was nearly 13.6 per cent against the prescribed limit of 25 per cent. Fiscal deficit as per cent of GSDP in 2023-24 was 3.1 per cent which is within FRBM limit. This provides fiscal space to the State to channelize resources to areas with highest social return to investment.

2.3 Revenue Receipts

2.3.1 In 2023-24 BE, the revenue receipts of the state stood at INR 1.84 lakh crore and recorded the growth of 12.8 per cent over the 2022-23 RE, attributed to growth in both own tax and non-tax revenues. Revenue receipt of Odisha has been above 18 per cent of GSDP since 2014-15, growing at an average rate of 14.6 per cent annually since then (Figure 2.1).

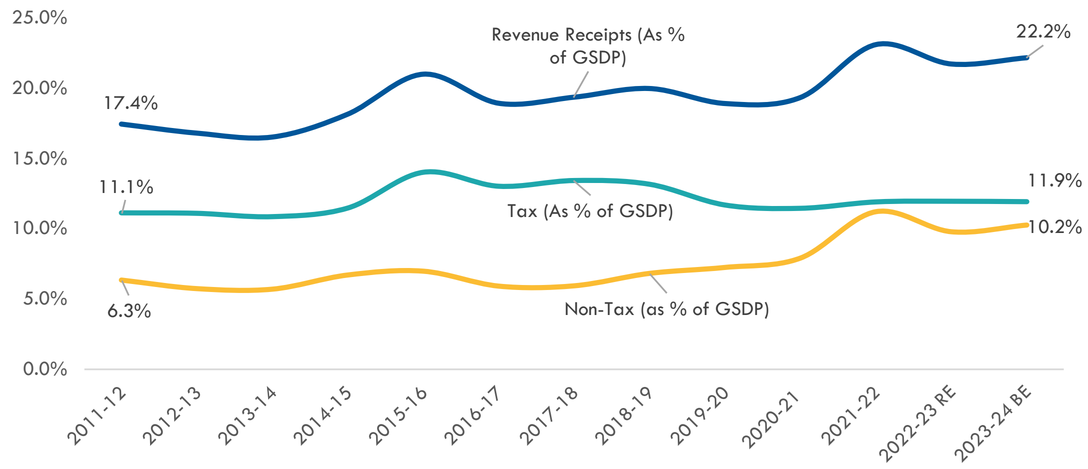
Figure 2.1 | Trends in Revenue Receipts of Odisha: 2014-15 to 2023-24 BE



Source: Annual Budget documents, Odisha

2.3.2 Odisha has also improved its ability to raise resources given its base, proxied by size of the economy (GSDP). The State has seen improvement in revenue receipts as per cent of GSDP overtime (Figure 2.2). In 2011-12, revenue receipts as per cent of GSDP was 17.4 per cent which has gone up to 22.2 per cent in 2023-24 BE. The major source of increase in revenue receipts (as per cent of GSDP) is the improvement in non-tax revenues. Non-tax revenues as per cent of GSDP has gone up from 6.3 per cent in 2011-12 to 10.2 per cent in 2023-24 BE.

Figure 2.2 | Revenue receipts, Tax Receipts and Non-Tax Receipts (As % of GSDP)



Source: Annual Budget documents, Odisha and DoES, Odisha

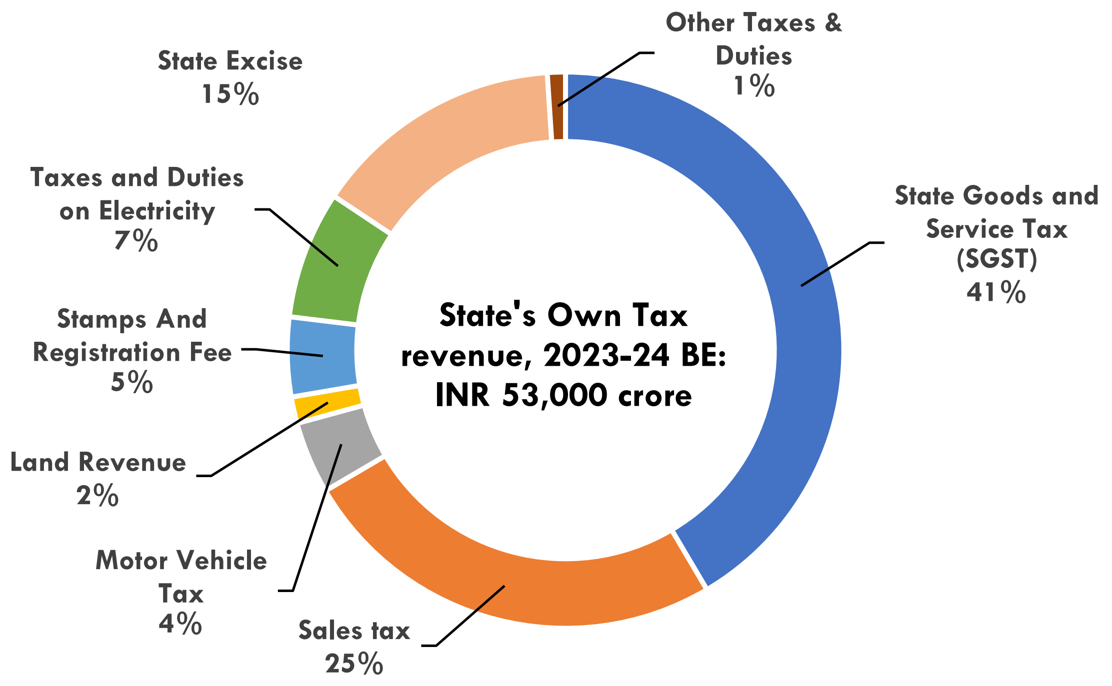
i. Composition of Revenue Receipts

The revenue receipts include state's own revenue and central transfers including share in central taxes and grants from the centre.

a. Own Revenues

2.3.3 State's own revenue includes state's own tax revenues and own non-tax revenues. In 2023-24 BE, state budgeted for INR 53,000 crore of State's own tax revenues which was 23 per cent of total budget size. The composition of state's own tax revenue is given in Figure 2.3. Sales tax, State Excise and State GST are top three contributors to state's own tax revenues.

Figure 2.3 | Composition of State's own tax revenues, 2023-24 BE

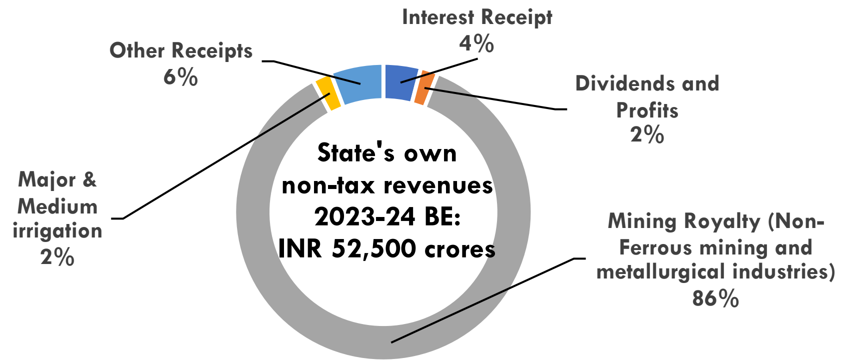


Source: Annual Budget Documents, Government of Odisha, 2023-24

2.3.4 The State has buoyant own-tax revenues. The tax buoyancy of own tax revenue during the period 2011-12 to 2023-24 BE was more than 1(1.04). This implies if GSDP grows at 10 per cent, the own-tax revenue would grow at 10.4 per cent on average.

2.3.5 In 2023-24 BE, the State budgeted for nearly INR 52,500 crores of own non-tax revenues. This is nearly 12.9 per cent more than 2022-23 RE. The contribution of state's own non-tax revenues has steadily increased from nearly 16 per cent of total revenue receipts in 2011-12 to 28.5 per cent in 2023-24 BE. The composition of own non-tax revenues is given in Figure 2.4. Mining royalties constituted nearly 86 per cent of total own non-tax revenues in 2023-24 BE.

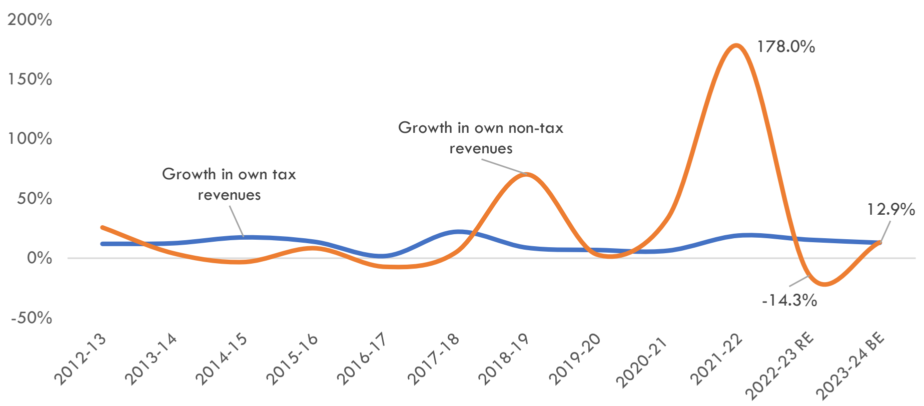
Figure 2.4 Composition of State's own non-tax revenues, 2023-24 BE



Source: Annual Budget Documents, Government of Odisha, 2023-24

2.3.6 Relative to own tax revenues, own non-tax revenues are more volatile (Figure 2.5). This is largely due to increased share of mineral royalties. Revenue from the mining sector is sensitive to price fluctuation in international market and demand for metals in national and international markets. Considering the fiscal risks associated with the price fluctuation and volatility in mining revenue, a 'Budget Stabilization Fund' is set up as a safeguard to maintain financial stability during periods of adverse impacts from the mining sector. A strategic reserve within the fund has been maintained to withstand any downturns in the mining revenue - a risk mitigation measures to address potential shortfalls in future.

Figure 2.5 Growth in own tax and own non-tax revenues (2012-13 to 2023-24 BE)



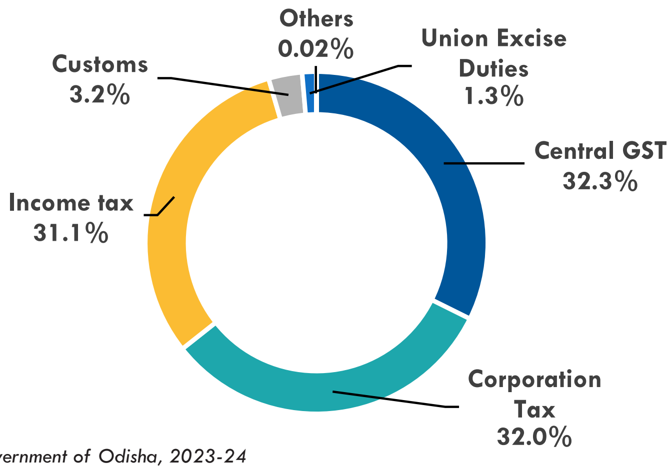
Source: Annual Budget Documents, Government of Odisha, 2023-24

b. Central Transfers

2.3.7 Central transfers to state comprise of share in divisible pool of taxes and grants from the Centre. In 2023-24 BE, the State budgeted for central transfers to the extent of INR 79,000 crore. Central transfers constitute nearly 34 per cent of State Budget, i.e. nearly 20 per cent in the form of share in divisible pool of taxes and nearly 14 per cent in the form of grants from the centre.

State budgeted for INR 46,251 crores of transfers in 2023-24 BE in the form of share in divisible pool of taxes. The distribution is shown in Figure 2.6. Central goods and services taxes, personal income tax and corporation tax are the leading contributor to transfers of tax collections from the Government of India.

Figure 2.6 Distribution of central tax transfers, 2023-24 BE



Source: Annual Budget Documents, Government of Odisha, 2023-24

2.3.8 In 2023-24 BE, State government budgeted for nearly INR 32,749 crores of grants from centre. The distribution of grants from the centre is provided in Table 2.2. Some of the leading heads under which State Government receives grants from centre are (i) GST compensation, (ii) affordable housing development under Pradhan Mantri Awas Yojana, (iii) National Rural Health Mission, (iv) Jal Jeevan Mission and (v) employment guarantee under National Rural Employment Guarantee Act.

Table 2.2 Major grants from central government, 2023-24 BE

#	Item	Amount (INR Crore)	Share
1	Compensation of Revenue Loss on implementation of GST	4,157	12.7%
2	Pradhan Mantri Awas Yojana	3,600	11.0%
3	National Rural Health Mission	2,835	8.7%
4	Jal Jeevan Mission	2,000	6.1%
5	National Rural Employment Guarantee Act	1,900	5.8%
6	Grants towards State Disaster Response Fund	1,769	5.4%
7	15th FC sector specific grants	1,350	4.1%
8	Integrated Child Development Scheme	1,100	3.4%
9	Grants from National Disaster Response Fund (NDRF)	1,007	3.1%
10	15th FC Grants for Urban Local Bodies	968	3.0%
11	Pradhan Mantra Gram Sarak Yojana	950	2.9%
12	National Programme to Nutritional Support to Primary Education	852	2.6%
13	National Rural Livelihood Mission	750	2.3%
14	National Social Assistance Programme	500	1.5%
15	Other grants	9,011	27.5%
Total	**Grants from central government**	**32,749**	**100.0%**

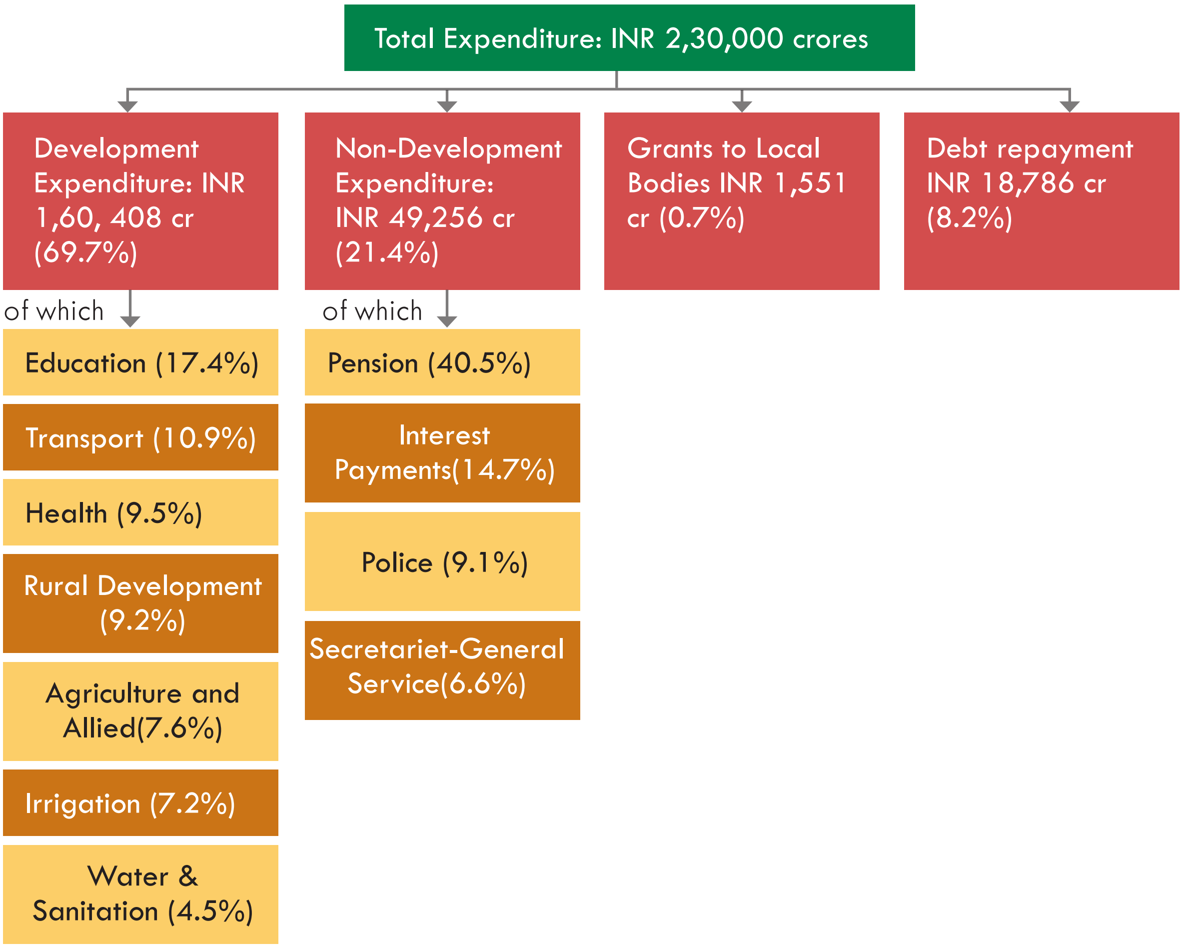
Source: Annual Budget Documents, Government of Odisha, 2023-24

2.4 Total expenditure

2.4.1 The total expenditure budgeted for 2023-24 BE was INR 2.3 lakh crores. Figure 2.7 shows high level composition of total expenditure. Nearly 70 per cent of total expenditure is development expenditure (including both revenue expenditure and capital outlay and loans and advances given to local governments for development purposes). About 21.4 per cent of total expenditure was allocated towards non-development purposes such as pension, secretariat services, police, interest payments etc. Nearly 0.7 per cent of total expenditure is in the form of grants to local bodies and remaining 8.2 per cent of total expenditure was meant for repayment of debt.

2.4.2 A substantial portion of development expenditure was allocated towards education (constituting nearly 17.4 per cent of total development expenditure) followed by transport, health, rural development, agriculture, irrigation and water and sanitation.

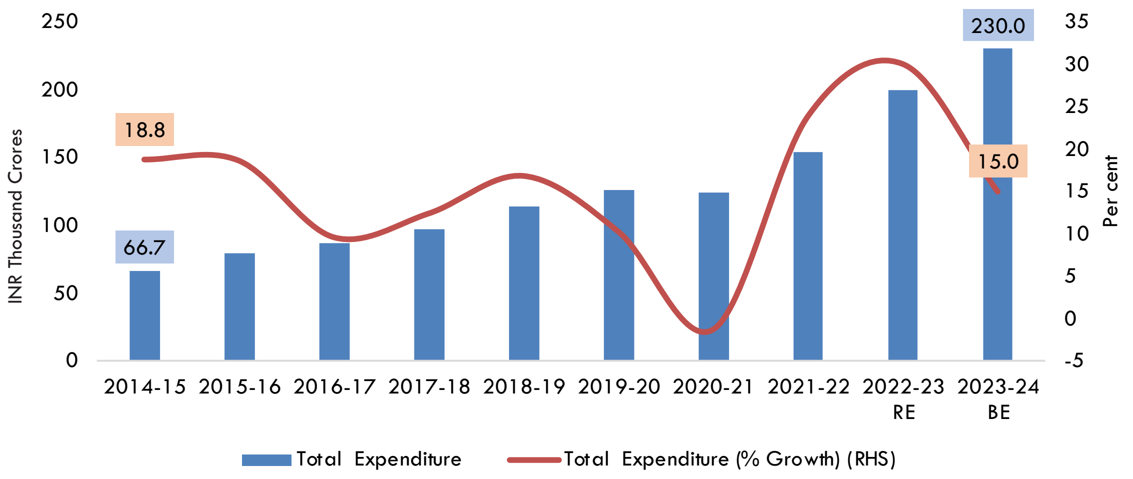
Figure 2.7 | Composition of total expenditure, 2023-24 BE



Source: Annual Budget Documents, Government of Odisha, 2023-24

2.4.3 Total expenditure in 2023-24 was 15.0 per cent higher than 2022-23 RE (Figure 2.8). The growth in total expenditure was mainly attributed to the growth in capital outlay by 34.9 per cent. The revenue expenditure was anticipated to grow by 8.0 per cent over 2022-23 RE. Odisha's expenditure has been witnessing consistent double-digit growth during the period 2014-15 to 2019-20, growing at an average rate of 14.4 per cent annually.

Figure 2.8 | Trend of Total Expenditure - Odisha



Source: Annual Budget Document, GoO

i. Revenue Expenditure

2.4.4 Revenue expenditure is the major component in total expenditure of the state. It stood at INR 157.8 thousand crores in 2023-24 BE. Over the years, the share of revenue expenditure in the total has gradually declined from 76.7 per cent in 2014-15 to 68.6 per cent in the 2023-24 BE. Revenue expenditure can be classified under three heads: developmental (which includes social services and economic services), non-developmental, and grants to Urban Local Bodies (ULBs) and Panchayati Raj Institutions (PRIs). For prioritizing economic development of the state, highest proportion of revenue expenditures is allocated to developmental expenditure accounting for 69.5 per cent with an amount of INR 109.6 thousand crores in 2023-24 BE. On the other hand, non-developmental expenditure stood at INR 46.6 thousand crores, constituting 29.5 per cent and remaining 1.0 per cent constitutes the grants (Table 2.3).

Table 2.3 | Composition of Revenue Expenditure (Per cent) - Odisha

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23 RE	2023-24 BE
Developmental exp.	70.0	72.8	72.7	70.0	70.2	69.7	68.9	68.5	66.3	69.5
Social services	41.0	41.9	42.4	41.1	42.7	43.9	41.9	43.2	41.8	42.8
Economic services	29.0	30.9	30.3	28.9	27.5	25.8	27.1	25.4	24.5	26.7
Non-developmental exp.	28.4	25.6	25.7	28.2	28.2	28.8	29.7	30.1	32.6	29.5
Grants to ULBs and PRIs	1.6	1.6	1.6	1.8	1.6	1.4	1.4	1.4	1.1	1.0

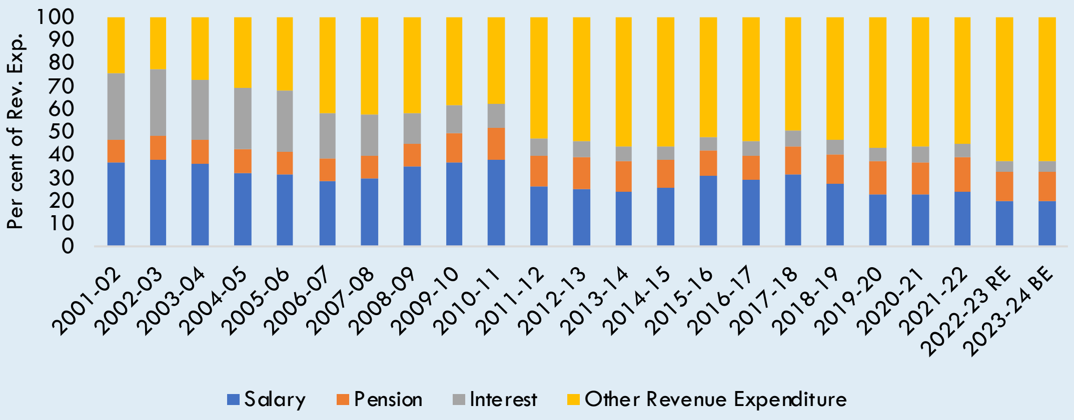
Source: Annual Budget Document, GoO

2.4.5 Most of the non-developmental expenditure relate to interest payment and pension. The fiscal prudence of the state has kept the share of these components limited to 17.3 per cent of revenue expenditures in 2023-24 BE. The significant portion of developmental expenditure under revenue account is attributed to social services with a share of 61.6 per cent. Education, health, water supply, and sanitation receive higher allocations within the social services.

Box 2.1: Odisha's journey in meeting committed expenditure from its own revenue sources

The committed expenditure of a state typically includes salaries, pensions, and interest payments. The pensions & other retirement benefit is the major contributor to the committed expenditure of the state. The committed expenditure is first charge on the resources of the government. The committed expenditure of INR 7.5 thousand crores in 2001-02 was more than two times of the State's Own Revenue. Whereas the committed expenditure of INR 58.8 thousand crore in 2023-24 BE is 55.7 per cent of the State's Own Revenue. Therefore, State is able to finance its committed expenditure from its own sources of revenue. Figure 2.9 depicts change in the composition of the state's committed expenditure over the last 23 yeaINR This allocation breaks down into expenditures on salaries (53.7 per cent), pensions (34.0 per cent), and interest payments (12.3 per cent). As a result of this, the committed expenditure could be reined in. The share of committed expenditure in revenue expenditure have been shrinking since 2001-02. The fiscal prudence of the state has kept its share limited to 37.3 per cent in 2023-24 BE. (Figure 2.9).

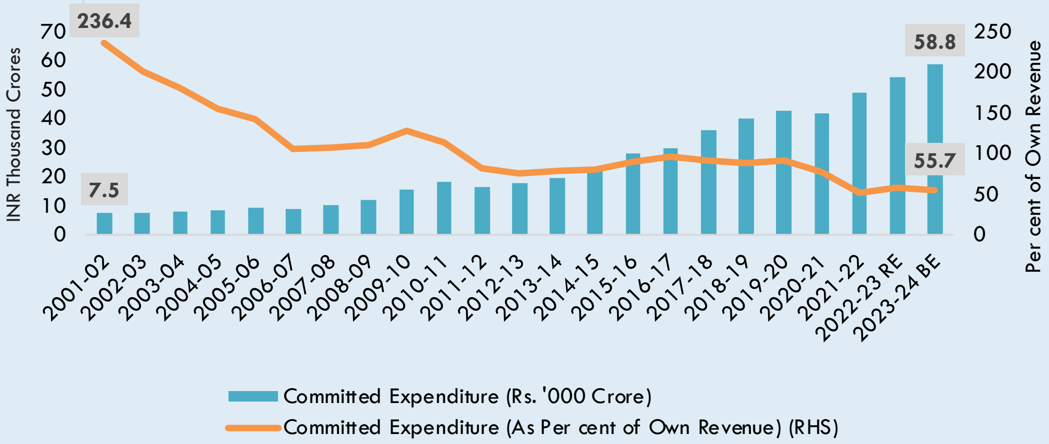
Figure 2.9 | Composition of Revenue Expenditure



Source: Annual Financial Statement (various years), Government of Odisha

A smaller share of committed expenditure in total expenditures is indicative of quality of expenditure and reflects the flexibility to the State channelize funds to emerging priorities. As per the Odisha FRBM Act, 2005, the ratio of non-interest committed revenue expenditure to state's own and mandated revenue to be 55 per cent by 2007-08 (Section 5.e, ii).

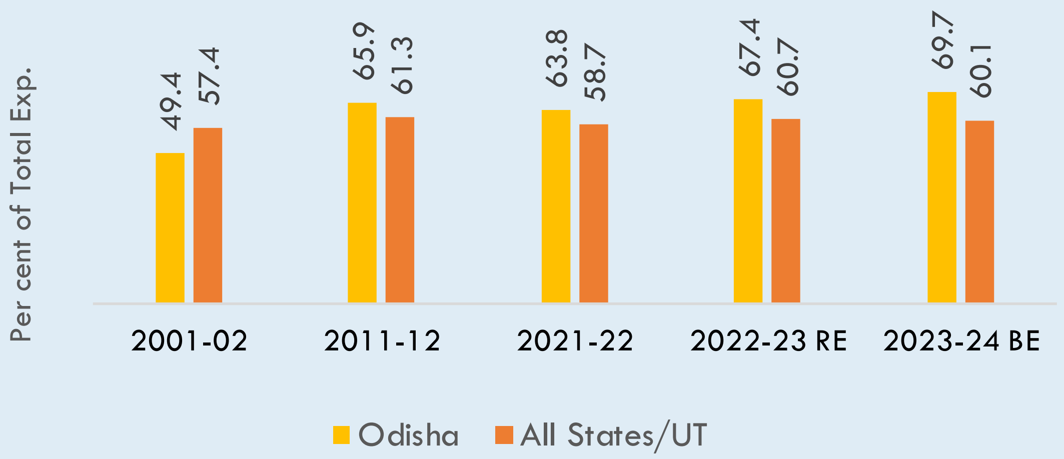
Figure 2.10 State's committed expenditure- Long run trend



Source: Annual Financial Statement (various years), Government of Odisha

Odisha's share of committed expenditure in revenue expenditure fares well in comparison to All-states/UT average. As per RBI State Finances: A Study of Budgets, while the All-States/UT average of committed expenditure as a percentage of revenue expenditure was 37.4 per cent in 2001-02, the corresponding figure for Odisha was substantially large at 47.3 per cent. However, in 2023-24 BE, it is one of the lowest (at bottom three) when we compare it with other major states Figure 2.11 provides a comparison of Development expenditure of Odisha vis-à-vis other States.

Figure 2.11 Comparing Development Expenditure – Odisha vis-à-vis All States/UT



Source: State Finance - A study of Budget, RBI, Various Years

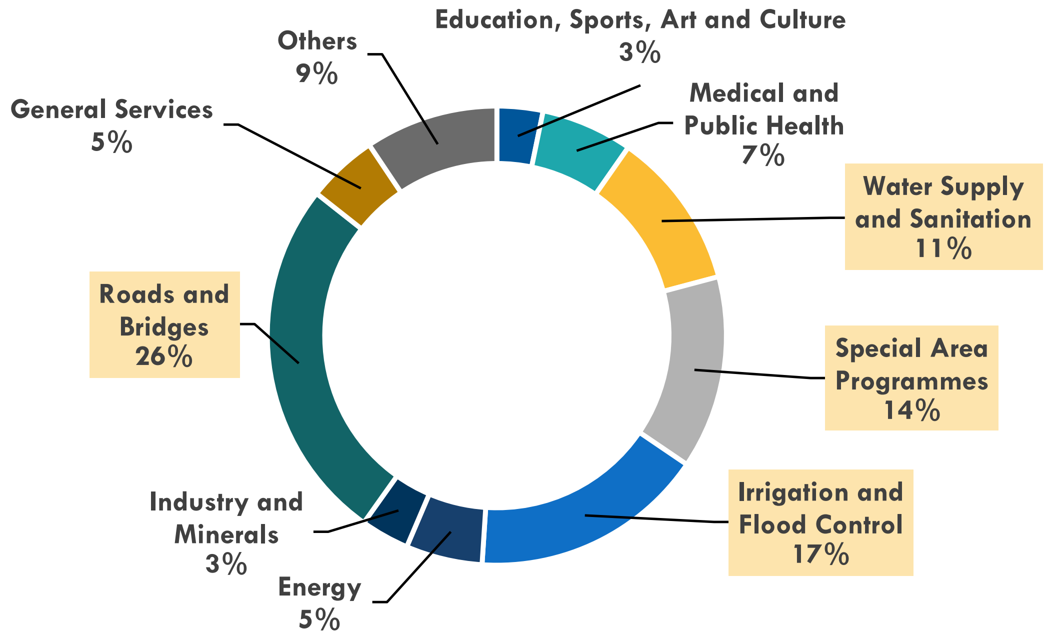
ii. Capital Outlay

2.4.6 Given that State is a major stakeholder in infrastructure development, capital outlay is an important measure to assess whether government spending is oriented towards building productive capacity of the State and boosting future potential growth. The capital outlay in 2023-24 BE stood at INR 51.7 thousand crores, represents fourfold increase of the outlay from 2014-15. The capital outlay increased from 5.1 per cent of GSDP in 2022-23 RE to 6.2 per cent in 2023-24 BE. The capital outlay increased by 68.6 per cent and 34.9 per cent in 2022-23 RE and 2023-24 BE respectively. In 2023-24 BE, top sectors in term of capital outlay are roads and bridges, irrigation, special area programmes and water and sanitation (Figure 2.12).

With the focus on building infrastructure to ensure sustainable growth, the capital outlay has increased more than four times in last ten yealNR

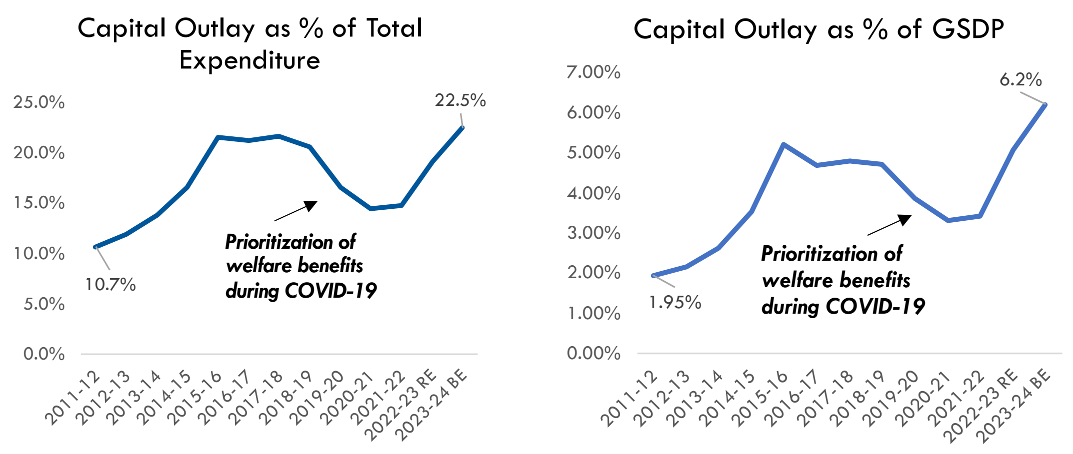
2.4.7 A review of evolution of capital outlay as per cent of total expenditure and as per cent of GSDP suggests that overtime priority is given to infrastructure development except during COVID-19 period where priority was more on addressing welfare needs during distress. Capital outlay as per cent of total expenditure has gone up from 10.7 per cent in 2011-12 to 22.5 per cent in 2023-24 BE. Similarly, capital outlay as per cent of GSDP has also improved from 1.95 per cent in 2011-12 to 6.2 per cent in 2023-24 BE (Figure 2.13).

Figure 2.12 | Composition of capital outlay, 2023-24 BE



Source: Annual Budget Document, GoO

Figure 2.13 Capital Outlay as per cent of Total Expenditure and GSDP



Source: Annual Budget Document, GoO and DoES, GoO

iii. Social Sector Expenditure

2.4.8 The expenditure on social services like education and health underlines the government's commitment in improving the quality of life for citizens. Such expenditure plays a crucial role in providing access to social services for citizens, particularly the marginalized and vulnerable sections. The social sector expenditure (SSE) of Odisha increased at CAGR of 14.4 per cent between 2014-15 and 2023-24 BE. It stood at INR 98.0 thousand crores in 2023-24 BE. The SSE as a proportion of GSDP has registered an increase of more than 2.5 percentage points during the period from 2014-15 to 2023-24 BE, from 9.3 per cent in 2014-15 to 11.8 per cent in 2023-24 BE (Table 2.4). The increase was witnessed across all social sectors especially education and health where the expenditure as per cent of GSDP marginally increased from 3.2 per cent and 1.0 per cent respectively in 2014-15 to 3.3 per cent and 1.6 per cent respectively in 2023-24 BE.

Table 2.4 Trends in Social Sector Expenditure by Odisha

	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23 RE	2023-24 BE
	INR Thousand Crore									
Social Sector Expenditure	29.2	36.3	39.6	45.2	54.1	61.0	58.2	66.8	86.0	98.0
of which:										
Education	10.2	11.6	12.2	14.5	17.0	18.0	17.8	19.7	26.2	27.6
Health	3.2	3.7	4.7	4.9	5.7	6.2	7.9	10.4	13.1	15.9
Water Supply and Sanitation	1.6	2.7	3.2	3.3	5.1	7.1	4.5	7.0	9.7	13.0

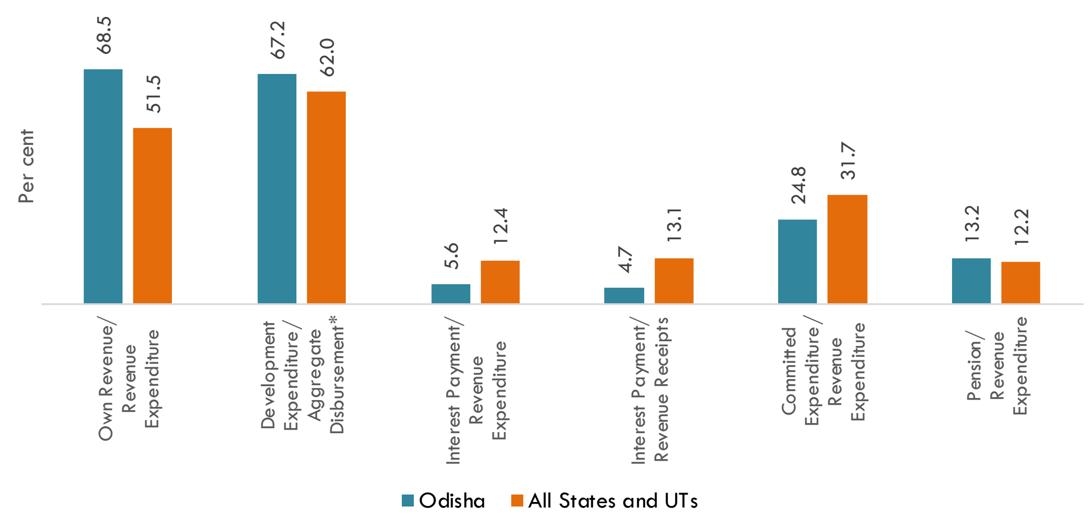
Others	14.3	18.3	19.5	22.4	26.3	29.8	28.0	29.6	36.9	41.4
	As per cent of GSDP									
Social Sector Expenditure	9.3	11.0	10.1	10.3	10.8	11.4	10.8	10.1	11.4	11.8
of which:										
Education	3.2	3.5	3.1	3.3	3.4	3.3	3.3	3.0	3.5	3.3
Health	1.0	1.1	1.2	1.1	1.1	1.2	1.5	1.6	1.7	1.9
Water Supply and Sanitation	0.5	0.8	0.8	0.8	1.0	1.3	0.8	1.1	1.3	1.6
Others	4.5	5.6	5.0	5.1	5.3	5.5	5.2	4.5	4.9	5.0

Note: (i) Social Sector Expenditure includes expenditure on social services, rural development and food storage and warehousing under revenue expenditure, capital outlay and loans and advances by the State; (ii) Health includes Medical and Public Health and Family welfare. Source: Annual Budget Document, GoO.

iv. A comparative perspective

2.4.9 Odisha performs well on various indicators of expenditure quality when compared to the average of all states & UTs. Figure 2.14 points out that Odisha performs above the average of all states & UTs over the period from 2020-21 to 2023-24 BE. This is attributed to Odisha's improvement in the composition of development spending and effectiveness of public finance management policies. This indicates Odisha's success in maintaining its expenditure quality while maintaining fiscal discipline.

Figure 2.14 | Quality of Expenditure (2020-21 to 2023-24 BE) (In per cent)

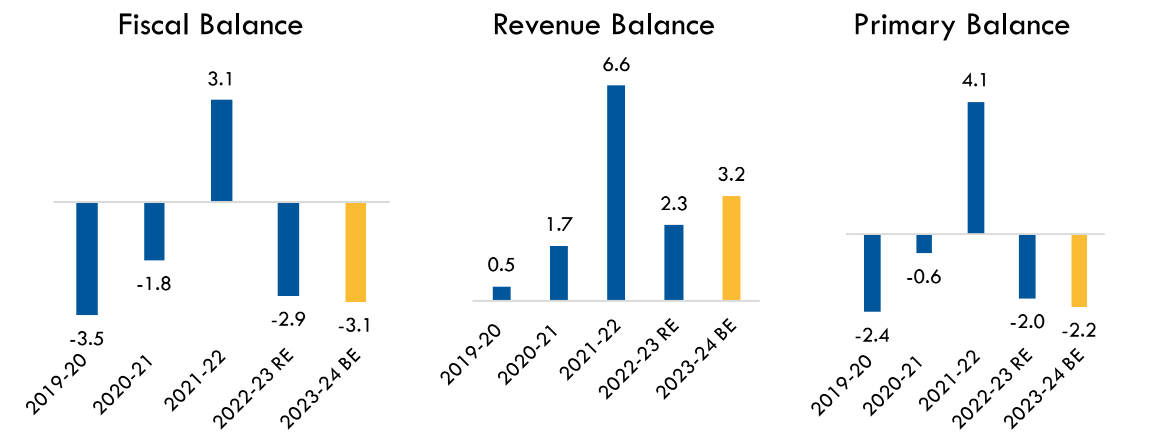


Source: State Finances - A Study of Budgets, 2023-24, RBI

2.5 Key Fiscal Indicators

2.5.1 Odisha's performance in public finance remained robust in keeping its key fiscal indicators stable in line with its past trend since 2005-06. Figure 2.15 highlights that the states' gross fiscal deficit to GSDP ratio improved from 3.5 per cent in 2019-20 to 3.1 per cent in 2023-24 BE which is within the permissible limit of 3.5 per cent of GSDP under Odisha Fiscal Responsibility and Budget Management (FRBM) Act, 2005.

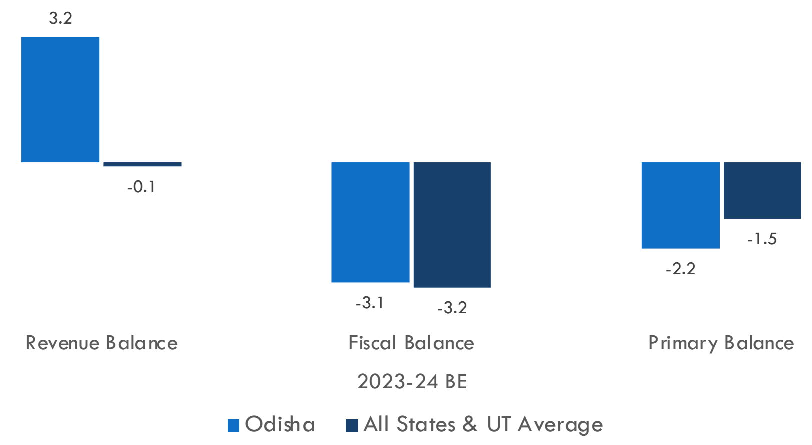
Figure 2.15 Key Fiscal Indicators - Odisha (As % of GSDP)



Note: (i) Positive (+) and Negative (-) sign indicates surplus and deficit respectively, (ii) Based on latest GSDP from DE&S, Odisha. Source: Annual Budget documents, Odisha and DE&S, Odisha.

2.5.2 Odisha is a revenue surplus states as shown by positive revenue balance in Figure 2.15. In 2023-24 BE, the state budgeted for revenue surplus to the extent of nearly 3.2 per cent of GSDP. Robust growth in revenue receipts and controlled revenue expenditure, particularly committed expenditure has helped State to report revenue surplus which is reinvested in building infrastructure (through capital outlay).

Figure 2.16 Key Fiscal Indicators (As % of GSDP) - Odisha vis-à-vis All States & UTs



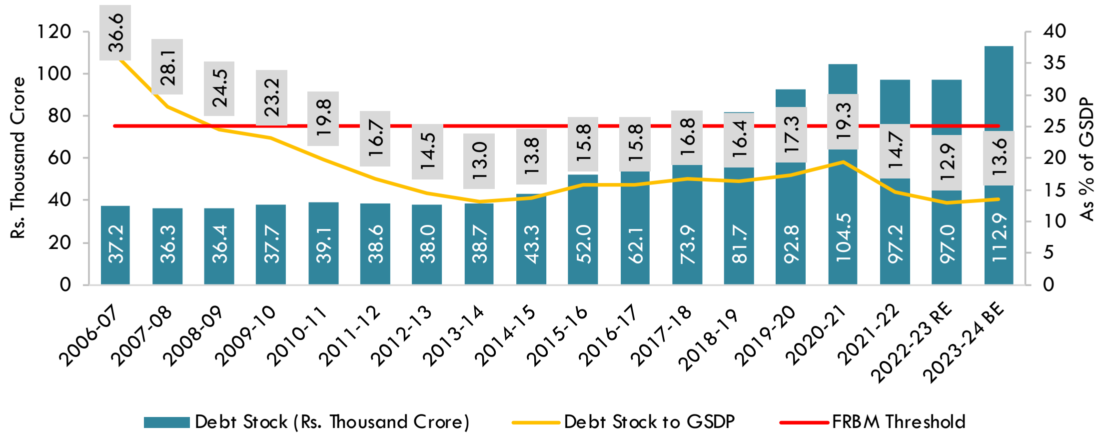
Note: (i) Positive (+) and Negative (-) sign indicates surplus and deficit respectively, and (ii) Based on latest GSDP and GDP data from DE&S Odisha and MoSPI, India respectively. Source: Annual Budget documents, Odisha, DE&S, Odisha, and State Finances: A Study of Budgets, RBI

2.6 State's Debt

i. Debt stock

2.6.1 The debt stock represents the outcome of all the budgetary transactions. It is an important indicator of fiscal correction initiatives undertaken during the year. Debt stock that forms the largest component of outstanding liabilities has witnessed a decline over the yealNR The total debt stock of Odisha is estimated at INR 112.9 thousand crores for 2023-24 BE, grown by 16.3 per cent over the previous year 2022-23 RE. The total debt of Odisha increased at CAGR of 5.0 per cent between 2019-20 and 2023-24 BE lower than the CAGR of 17.2 per cent between 2014-15 and 2018-19. Figure 2.17 shows the evolution of total debt stock in Odisha between 2006-07 and 2023-24 BE. Debt stock as percentage of GSDP stood at 36.6 per cent in 2006-07, much higher than the thresholds limit of 25 per cent under the FRBM Act, 2005. The state had resolved to commit to the thresholds prescribed by the FRBM Act. It tried to improve fiscal consolidation, and refined the way it has done. Since 2008-09, the state has been able to keep its debt-GSDP ratio below the limit of 25 per cent set by Fifteenth Finance Commission and Odisha FRBM Act, 2005. (Figure 2.17). As a per cent of GSDP, total debt has steadily declined to 13.0 per cent in 2013-14 and after that it increased to 16.8 per cent in 2017-18 and 19.3 per cent in 2020-21. Compared to 2020-21, total debt declined to 12.9 per cent and 13.6 in 2022-23 RE and 2023-24 BE respectively. The recently decreased rate of total debt is due to the public debt repayment and availing its borrowing requirements from low-cost sources without opting for open market borrowing. Hence, the current debt stock of Odisha is within the stipulated debt limit and stable.

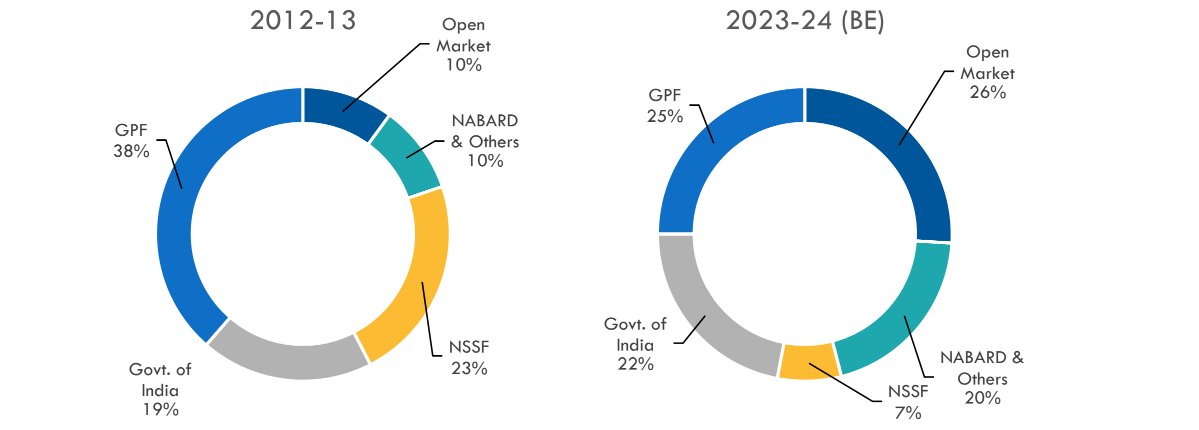
Figure 2.17 | Debt stock to GSDP – Odisha



Source: Debt data from Annual Budget Documents, GoO and GSDP data from DE&S, Odisha

2.6.2 The composition of debt stock has also witnessed a transition from some of the high-cost borrowing sources such as National Small Saving Fund (NSSF) to low-cost borrowing sources. Broadly, the five largest sources of borrowing are shown in the Figure 2.18.

Figure 2.18 Composition of Debt stock – Odisha (Per cent)

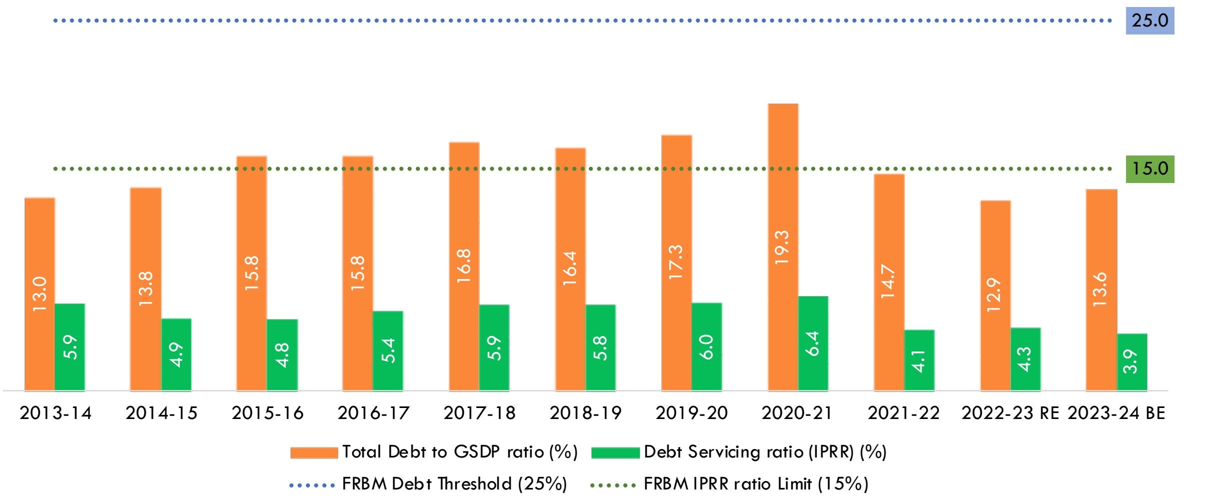


Source: Annual Budget Documents, GoO

ii. Debt Sustainability

2.6.3 Debt sustainability means ability of a government to service its current and future financial obligations either with non-borrowed funds (own resources) or borrowed funds without any difficulty. Debt sustainability analysis considers solvency aspects and liquidity aspects. In other words, public debt is sustainable when the government is both solvent and liquid. Ratios of debt stock relative to repayment capacity are indicators of solvency. Ratios of debt service are indicators of liquidity (e.g., debt service/ revenue ratio; interest payments/revenue ratio). These measures of solvency and liquidity are called as the debt burden indicators (DBI).

Figure 2.19 Debt to GSDP ratio and IP/RR: 2013-14 to 2023-24 BE



Source: Annual Budget Documents, GoO

2.6.4 The total debt stock to GSDP ratio and debt-servicing ratio (interest payment to revenue receipt ratio: IPRR ratio) are two important fiscal parameters of debt sustainability. The former represents the debt burden and the later represents interest payment burden of the State. The limit for debt stock to GSDP ratio and IPRR ratio has been prescribed in the Union Finance Commission's recommendations and Odisha FRBM Act, 2005. The debt to GSDP ratio should be within 25 per cent and the IPRR should be within 15 per cent. Odisha's total debt to GSDP ratio and IPRR ratio has remained within the stipulated threshold during the period from 2013-14 to 2023-24 BE. (Figure 2.19).

2.7 Conclusion

2.7.1 The State's budget, amounting to INR 2.3 lakh crore, signifies its substantial influence on the economic landscape. Adherence to the fiscal discipline mandated by the Fiscal Responsibility and Budget Management (FRBM) Act, as well as the guidelines set forth by the 15th Finance Commission, has been a cornerstone of the State's financial strategy. Such fiscal prudence is indispensable; however, it must be judiciously harmonized with strategic investments that catalyze economic expansion.

2.7.2 Investing in critical infrastructure is a pivotal driver of economic growth. The State's current financial position offers an opportunity to expedite investments in this domain. By channeling funds into infrastructure, the State stands to unlock latent growth prospects that span various sectors, thereby fostering comprehensive economic development.

2.7.3 Moreover, the State's controlled committed expenditure has yielded a fiscal environment conducive to safeguarding the economically vulnerable segments of society from the adverse impacts of diverse economic disturbances, including those stemming from climate-related events. This prudent financial management ensures that the State remains resilient in the face of economic fluctuations, while simultaneously laying the groundwork for robust, long-term economic growth.

CHAPTER 3

AGRICULTURE AND ALLIED SECTORS

ABSTRACT

Agriculture and allied sectors in Odisha account for 20.4 per cent of Gross State Value Added (GSVA) in 2023-24 (AE) and employ 48.1 per cent of total workforce in 2022-23 as per Periodic Labour Force Survey (PLFS). In rural areas, more than half of total workforce (53.8 per cent) are engaged in agriculture and allied sectors. In 2023-24 (AE), agriculture and allied sectors is estimated to grow at 3.5 per cent in Odisha. Crop sector is estimated to grow at 3.2 per cent while livestock and fisheries growth rates are estimated at 2.5 per cent and 3.6 per cent respectively. Forestry and logging sector is estimated to grow at 5.5 per cent in 2023-24 (AE).

Crop accounts for 59.0 per cent of total agricultural GSVA in 2023-24, while the share of livestock and fisheries in agricultural GSVA stands at 16.7 per cent and 10.6 per cent respectively. Forestry constituted remaining 13.8 per cent of agricultural GSVA. Though the share of crop in agricultural GSVA has been declining, it is still high. There is a need to accelerate growth of livestock and fisheries sector to increase agricultural growth in State and enhance farmers income. Further, within crop sub-sector, there is a need to accelerate crop diversification towards fruits & vegetables, pulses, oilseeds and cotton among other suitable cash crops.

Foodgrains production in the State has increased by 24.3 per cent to reach 141.4 lakh MT in 2022-23 from 113.8 lakh MT in 2021-22. Rice production, which is a principal crop in the State, has increased by 28.4 per cent in 2022-23. Pulses production has increased by 3.8 per cent in 2022-23 while oilseeds production has increased only by 1.2% over the previous year. There are several crops in Odisha in which the yield rate is lower than the national average. There is need to increase yield to propel agriculture growth in the State.

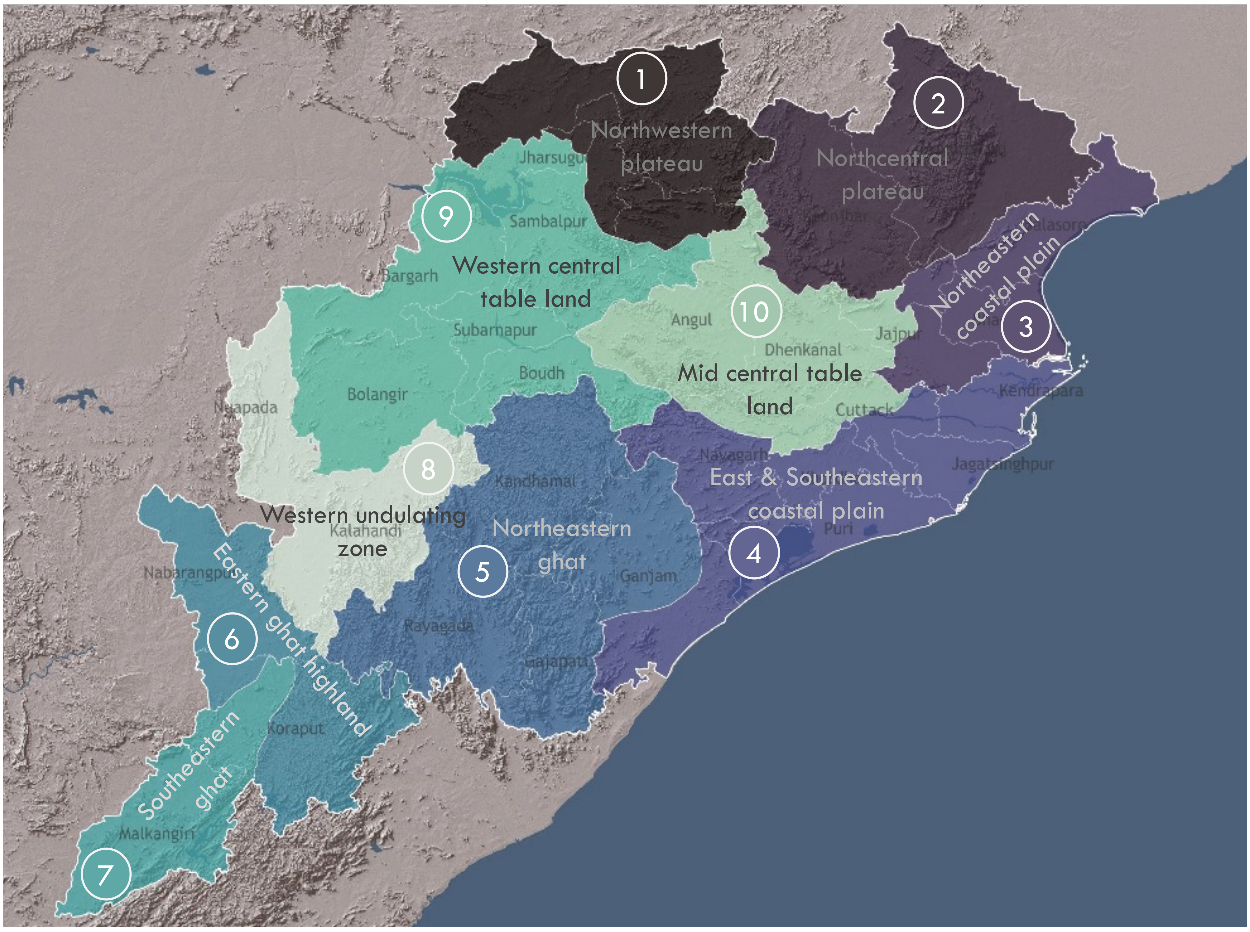
Similarly, productions of milk, meat, and eggs have increased in the State. Fish production has steadily increased in the State over time largely due to consistent growth in inland fish production. Total Fish production has increased at a CAGR of 10.6 per cent between 2014-15 and 2022-23. The per-capita annual fish consumption in the state has increased from 11.1 kg in 2013-14 to 17.7 kg in 2022-23. Exports of fish products have increased at a CAGR of 11.4 per cent during this period. Accordingly, the import of freshwater fish declined by 20 per cent between 2018-19 and 2022-23 indicating Odisha's reduced dependency on other states. But per capita availability of milk and eggs in State is lower than all India average. There is need to focus on increasing milk production through increasing yield and promotion of organized milk sector. Further, commercial poultry sector needs to be focused to increase egg production and availability of eggs in the State.

3.1 Introduction

3.1.1 Agriculture and allied sectors remain key constituents of Odisha economy. As per advance estimate, agriculture and allied sectors contribute around 20.4 per cent of gross state value added (GSVA) in 2023-24 as against 17.7 per cent at all India level. As per the periodic labour force survey, 48.1 per cent of total workforce in the State are engaged in agriculture sector in 2022-23 as compared to 45.8 per cent at all India level. But in rural areas, more than half of total workforce (53.8 per cent) are engaged in agriculture. A robust agriculture growth is important for ensuring food and nutrition security and maintaining price stability. With strong forward and backward linkages, agriculture and allied sectors play an important role in development of industry eco-system in the State.

3.1.2 Odisha is blessed with 10 agroclimatic zones with potential to produce variety of foodgrains, cash crops and horticulture crops (Figure 3.1). Availability of inland and marine water resources provides significant scope for the development of pisciculture in the State. Farmers in the State practise mixed farming which not only increases resilience of farmers to various economic and climate shocks but also help increase and diversify their income sources. Majority of farmers in Odisha are small and marginal land holders with average land holding size being 0.9 ha as per 10th agriculture census (2015-16). Development of crops, livestock and fisheries are critical to overall development of agriculture sector and enhancing farmers income in the State.

Figure 3.1 | Agroclimatic Zones in Odisha



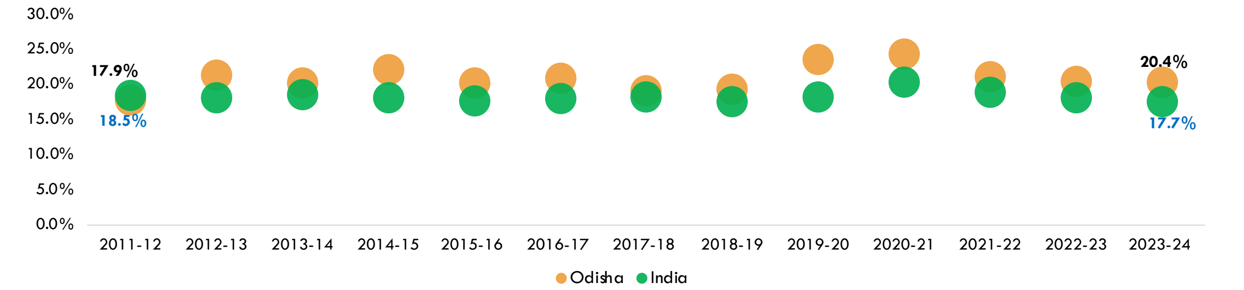
Source: Five Decades of Odisha Agriculture Statistics 2020, Government of Odisha

3.2 Contribution and Growth of Agriculture

GSVA Contribution

3.2.1 Agriculture and allied sectors contribute around 20.4 per cent to GSVA in Odisha in 2023-24 while its share is 17.7 per cent at all India level (Figure 3.2). The average contribution of agriculture and allied sectors to GSVA in Odisha has been around 20 per cent in the last decade, a little higher than all India level of around 18 per cent.

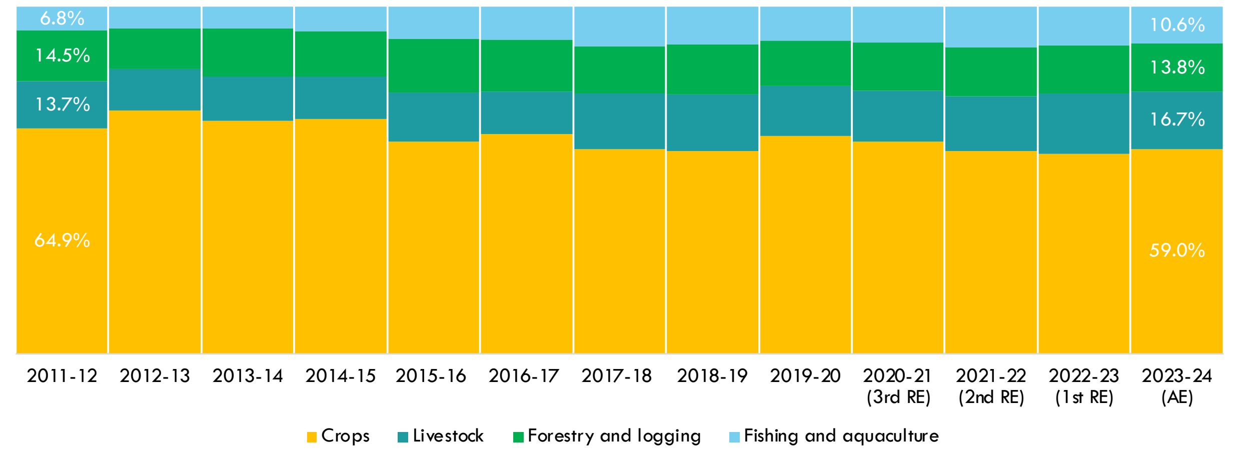
Figure 3.2 | Share of Agriculture & allied sector in G(S)VA- Odisha and India



Source- Directorate of Economics and Statistics, Government of Odisha and Ministry of Statistics and Programme Implementation, Government of India

Agriculture and allied sectors comprised of four key sub-sectors. These are crops, livestock, fisheries and forestry. The composition of agriculture and allied sectors have undergone some changes over time. The share of crops in agriculture sector GSVA has declined from 64.9 per cent in 2011-12 to 59.0 per cent in 2023-24 (AE). The share of livestock and fisheries in agriculture GSVA have increased from 13.7 per cent and 6.8 per cent in 2011-12 to 16.7 per cent and 10.6 per cent respectively in 2023-24 (Figure 3 3). However, the share of crop is still high at 59 per cent in 2023-24 (AE) as against all India level of 55.3 per cent (2022-23, RE). Additionally, the share of livestock sector in agricultural GSVA (16.7 per cent) is low as against all India level of 30.2 per cent. Fisheries sector contribution in Odisha is low in comparison to major fish producing states in India. There is need to accelerate growth of livestock and fisheries sector to increase agricultural growth in line with recommendations of committee on doubling farmers income.

Figure 3.3 | Composition of agriculture and allied sectors in Odisha



Source- Directorate of Economics and Statistics, Government of Odisha

Growth of Agriculture and Allied Sectors

3.2.2 As per advance estimate, agriculture, and allied sectors GSVA in Odisha is estimated to grow at 3.5 per cent in 2023-24 (Table 3.1) despite deficient rainfall and El Nino effects in the State. Protective irrigation, adequate crop planning and making available inputs at appropriate times helped reduce the impact of deficient rainfalls. All the sub-sectors of the agriculture and allied sectors registered robust growth rates in 2023-24 (Table 3.1). The crop sector grew at 3.2 per cent while livestock and fisheries sector registered growth rates of 2.5 per cent and 3.6 per cent respectively in 2023-24 (AE). Forestry and logging grew at 5.5 per cent in 2023-24 (AE).

Table 3.1 Growth of agriculture and allied sectors GVA at constant prices (per cent)

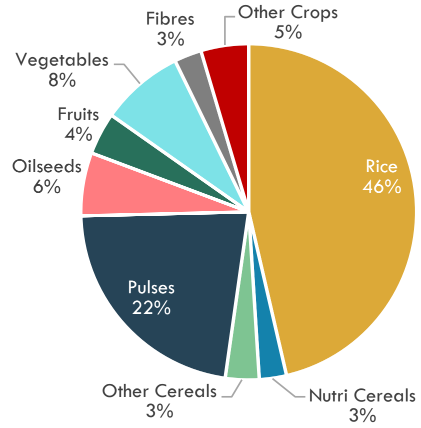
	Agriculture and allied sectors GSVA growth rate	Growth of Agri sub-sectors – Odisha			
	Odisha	Crops	Livestock	Forestry and logging	Fishing and aquaculture
2019-20	13.5	18.5	4.5	8.8	9.2
2020-21	7.3	10.4	0.2	4.9	3.9
2021-22	3.5	-0.5	10.0	4.6	14.6
2022-23 (RE)	8.9	12.0	7.8	0.8	6.6
2023-24 (AE)	3.5	3.2	2.5	5.5	3.6

Source: Directorate of Economics and Statistics, Government of Odisha

3.3 Cropping Pattern

3.3.1 Cropping pattern is critical for improving land use efficiency and protecting the soil nutrients. In 2022-23, Net sown area (NSA) in Odisha stood at 54.6 lakh ha (a slight increase from 54.1 lakh ha in 2021-22) accounting for 35.1 per cent of total geographical area (155.7 lakh ha). Gross cropped area (GCA) has increased by 2.5 per cent from 85.5 lakh ha in 2021-22 to 87.6 lakh ha in 2022-23. Cropping intensity has also improved from 158 per cent in 2021-22 to 160 per cent in 2022-23. There is need to further increase cropping intensity, particularly by targeting rice fallow areas and increasing irrigation coverage. Though cropping pattern has undergone some changes, there is lack of crop diversification in the State. Rice continues to be the dominant crop in Odisha, though its share in gross cropped area has declined marginally from 47.9 per cent of GCA in 2019-20 to 46.4 per cent in 2022-23 (Figure 3.4). Pulses is the next major crop in the state accounting for 22.4 per cent of GCA in 2022-23. Area under millet has seen maximum growth of 22.6 per cent in 2022-23 mainly due to implementation of millet mission. But millet constitutes just 3 per cent of gross cropped area. Fruits and vegetables together account for 12.1 per cent of total GCA in the State. Area under fruits and vegetables has marginally increased in 2022-23 over the previous year. Other high value crops like oilseeds and fibre (mainly cotton) constitute merely 6 per cent and 3 per cent of GCA in 2022-23. There is need to accelerate crop diversification in the State towards fruits & vegetables, pulses, oilseeds and cotton among other suitable crops and also reduce rice fallow areas during rabi cropping season.

Figure 3.4 | Cropping Pattern in Odisha (per cent of GCA under different crops)- 2022-23

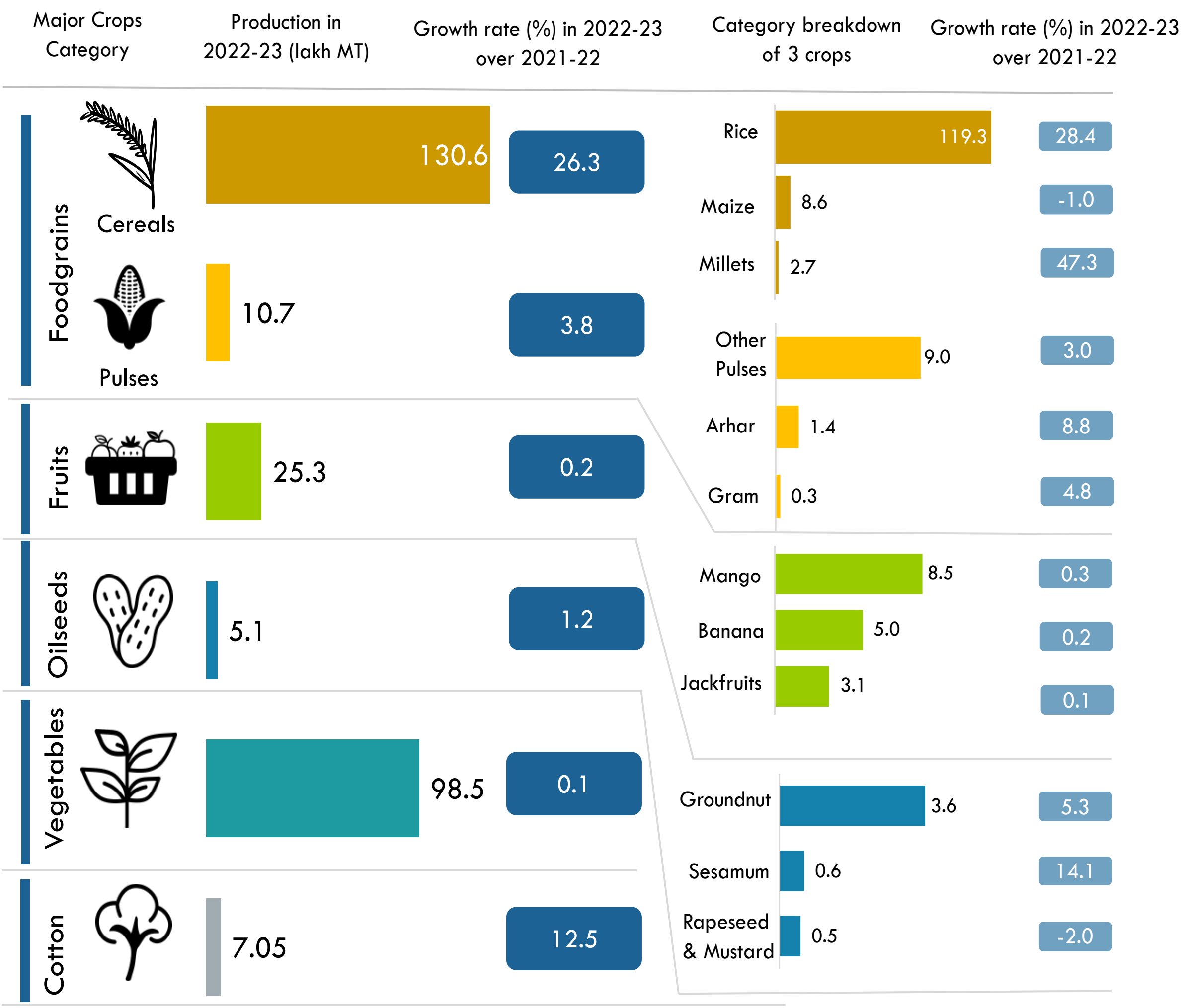


Source: Directorate of Agriculture and Food Production, Government of Odisha

- **Area under nutri cereals has increased by 24% and Ragi by 27% in 2022-23 because of Millet Mission and Procurement of Ragi under PDS**
- **Nutri cereals accounts for 3% of GCA in 2022-23**

3.4 Production of Major Crops in Odisha

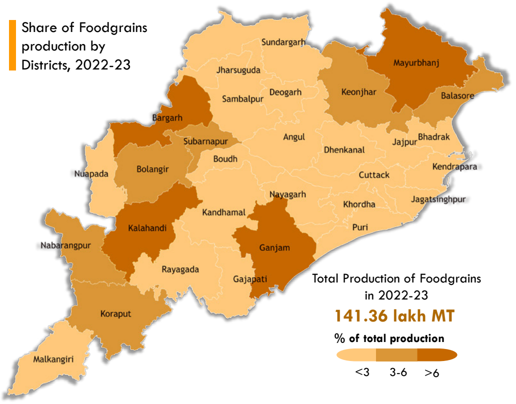
Figure 3.5 | Production and growth of major crops



Source: Directorate of agriculture & food production, Government of Odisha

Foodgrain

3.4.1 Foodgrain production in Odisha has increased by 24.2 per cent to reach 141.4 lakh MT in 2022-23 from 113.8 lakh MT in 2021-22. This was mainly possible due to significant growth in rice and millet production. Production and growth of major crops is presented in Figure 3.5. Rice, which constitutes 84 per cent of total foodgrain production, registered 28.4 per cent growth in 2022-23 to reach 119.3 lakh MT. Bargarh remains the key contributor of foodgrains in Odisha with 10 per cent share in total production in 2022-23. The top five districts namely, Bargarh, Ganjam, Kalahandi, Mayurbhanj and Keonjhar together contributes around 36 per cent of total foodgrain production in the State.

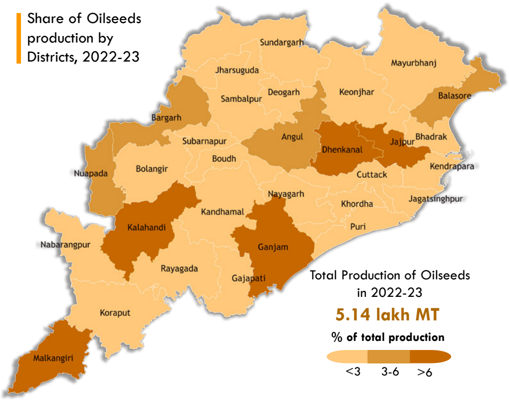


Source: *Directorate of A&FP, Government of Odisha*

3.4.2 Millet mission is being implemented in all the districts of the State. Since the launch of the mission and till 2022-23, millet production has increased by 121 per cent, though on a low base. In 2022-23, millet production in Odisha has increased by 47.3 per cent over the previous year to reach 2.7 lakh MT. Overall, cereal production has increased by 26.3 per cent in 2022-23. Similarly, pulses production in the State has increased by 3.8 per cent in 2022-23 over the previous year (Figure 3.5).

Oilseeds

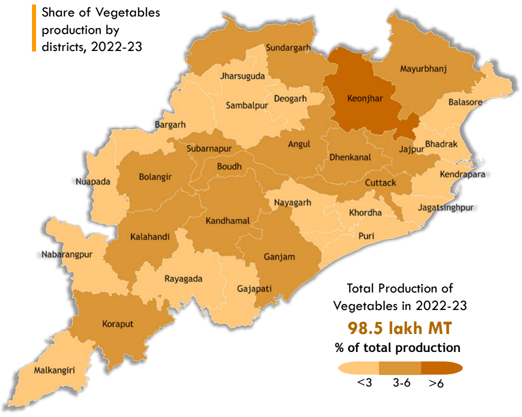
3.4.3 Oilseeds production stood at 5.1 lakh MT in 2022-23 which is just 1.2 per cent higher than the previous year. Groundnuts, with a production of 3.6 lakh MT, is the major component of oilseeds production, witnessed a growth of 5.3 per cent in 2022-23 over the previous year. The production of oilseeds varies across districts, ranging from 0.5 lakh MT in Kalahandi to 0.02 lakh MT in Bhadrak. The map shows the district-wise production of oilseeds in 2022-23. Kalahandi, Jajpur, Malkangiri, Dhenkanal, and Ganjam are the top five districts in oilseeds production. Together, they produce 2.12 lakh MT of oilseeds, accounting for 41 per cent of the total production in 2022-23.



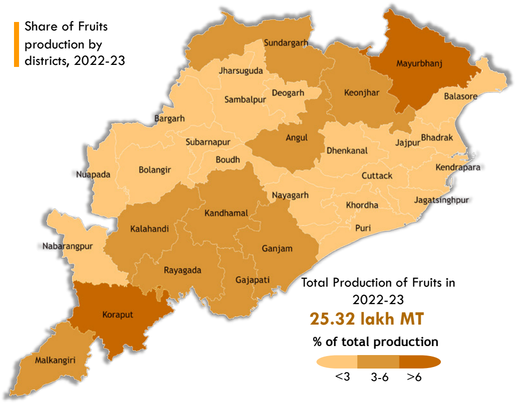
Source: *Directorate of A&FP, Government of Odisha*

Fruits and vegetables

3.4.4 Total vegetable production in the state stood at 109.24 lakh MT in 2023-24, which has increased by around 11per cent from 98.5 lakh MT in in 2022-23. Keonjhar, Sundargarh, Koraput, Angul, Bolangir, Ganjam and Dhenkanal are the top vegetable-producing districts in the State. Together these districts account for 35.3 per cent of total production in 2022-23. Total fruits production in the state has increased by 4 per cent from 25.3 lakh MT in 2022-23 to 26.33 lakh MT in 2023-24. Mango, Banana, and Jackfruit are the major fruits produced in the state. Mayurbhanj, Koraput, Angul, Sundargarh and Kandhamal are top five districts contributing together around 33 per cent of total fruits produced in 2022-23. The focus is given to expand fruits and vegetable area and production through various interventions. Interventions such as promotion of horticulture crops through input subsidy, establishment of block level nursery, horticulture programme in non-mission districts, encouraging Farmers Producers Organisation (FPOs) have been undertaken for increasing production of fruits and vegetables.



Source: Directorate of Horticulture, Government of Odisha



Source: Directorate of Horticulture, Government of Odisha

Floriculture

3.4.5 Given significant scope of floriculture development in the State, 'Floriculture Mission' has been launched in the year 2022-23 to increase the area and production. Total area under floriculture in the state has increased by 19.8 per cent while production has increased by 30.3 per cent in 2022-23 (Table 3.2). There is need to sustain growth of area and floriculture production in the State. Marigold accounts for more than 97 per cent of total ornamental crop production in the State. Marigold production has increased by 31.23 per cent to 40,550 MT in 2023-24 from 30,897 MT in 2022-23. Tuberose has shown 4.5 per cent increase in area and 5 per cent increase in production during 2023-24 over 2022-23.

Table 3.2 Area and production under floriculture

Year	Area (in Ha.)	Production (in MT)
2018-19	6,418	24,537
2019-20	5,456	30,849
2020-21	5,601	31,564
2021-22	5,638	31,714
2022-23	5,703	32,097
2023-24	6,830	41,810
Growth (per cent) in 2203-24 over 2022-23	19.8%	30.3%

Source: Directorate of Horticulture, Government of Odisha

3.5 Productivity of Major Crops

Yield of various crops have increased in Odisha over time due to increase in usage of factor inputs and adoption of improved practices among others. Maximum yield increase was seen in case of rice while least increase was witnessed in case of pulses between 2011-12 and 2021-22 (Table 3.3). Rice yield has increased by CAGR of 5 per cent from 1450 kg/ha in 2011-12 to 2353 kg/ha in 2021-22. But pulses yield has increased at a CAGR of 1.6 per cent against 2.5 per cent at all India level. Still yield of various crops in Odisha is lower than the national average. Rice yield in Odisha is 19 per cent lower than all India level while there is 61 per cent yield gap in case of pulses. Foodgrain yield in 2021-22 in Odisha stands at 2001 kg/ha against 2419 kg/ha at all India level. There is need to increase yield and improve resource use efficiency to increase farmers income.

Table 3.3 | Productivity of key crops (kg/ha) – Odisha and India

Crops	Odisha		India		CAGR (2011-12 to 2021-22)	
	2011-12	2021-22	2011-12	2021-22	Odisha	India
Rice	1450	2353	2393	2809	5.0%	1.6%
Pulses	471	553	699	892	1.6%	2.5%
Oilseeds	661	869	1133	1292	2.8%	1.3%
Foodgrains	1303	2001	2078	2419	4.5%	1.5%
Maize	2063	2780	2478	3349	3.0%	3.1%

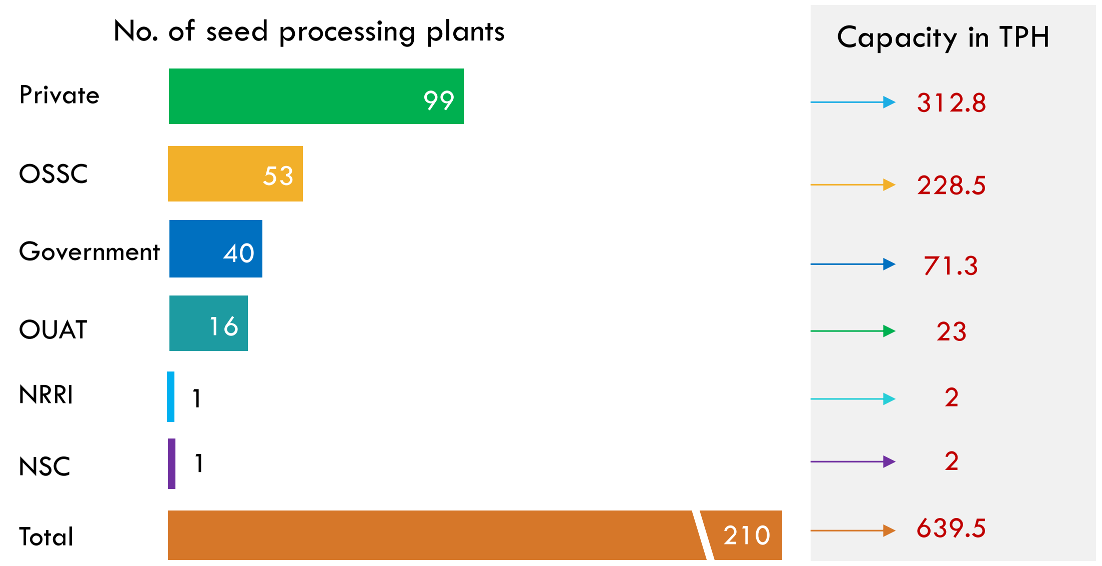
Source: Directorate of Agriculture and Food Production, Government of Odisha; Agricultural Statistics at a Glance 2022, Government of India

3.6 Drivers of Agriculture Growth

i. Seeds

3.6.1 Seed is an important factor of production for agricultural growth. The quality seeds not only enhance crop yield but also help in protecting crops from various diseases. Odisha State Seeds Corporation Ltd. (OSSC) is the nodal agency for production, procurement, processing, and supply of quality seeds to farmers in the State. Odisha State Seed and Organic Products certification Agency (OSSOPCA) is responsible for certification of seeds produced in the State. OSSC is implementing the Seed Village Programme for production of certified paddy and non-paddy seeds through seed growers. Seed growers are provided various incentives including foundation seeds for production of seeds. The seed as produced in growers' field are processed by OSSC/other government plants and procured by OSSC upon certification of the same by OSSOPCA. Seeds are distributed by OSSC to farmers through dealer network/PACS.

Figure 3.6 | Agency wise seed processing plants in Odisha, 2022-23



Source: Directorate of Agriculture and Food Production, Government of Odisha

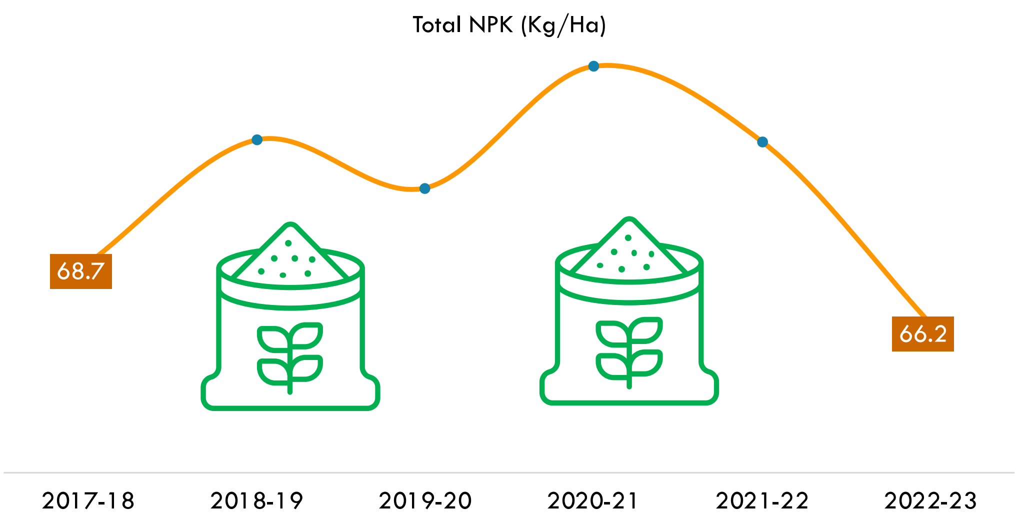
3.6.2 OSSC has 53 processing plants with the processing capacity of 228.5 TPH (Tonnes per Hour). Besides, there are several processing plants by other government agencies, and private sectors operating in the State. In recent years, private players have emerged as significant contributors to seed production, processing, and marketing. There are 99 private seed processing plants with combined capacity of 313 TPH are operating in the State. In total, there are 210 processing plants with seed processing capacity of 639.5 TPH as of 2022-23 (Figure 3.6). Besides procuring seeds from growers under seed village scheme, OSSC also procures from other state and central government agencies to meet the requirement of quality seeds of farmers.

3.6.3 The distribution of quality seeds has increased in the state. In 2022-23, a total of 3.76 lakh quintal seeds of both paddy and non-paddy crops were made available to farmers. But seed replacement rate (SRR) is low across crops in the state. In 2019-20, seed replacement rate (SRR) for paddy stood at 28.3 per cent while in case of cash crops like cotton and maize, SRR was over 60 per cent. There is need to increase the supply of quality seeds at an appropriate time in order to meet the demand for quality seeds in the State.

ii. Fertilisers and Pesticides

3.6.4 Balanced use of chemical fertilizers (such as NPK) and bio fertilizers is crucial for increasing crop production and maintaining soil health. Fertilizer consumption in Odisha has declined from 73.7 kg/ha in 2021-22 to 66.2 kg/ha in 2022-23 (Figure 3.7). Fertiliser consumption in Odisha is far behind the national average of 137.1 Kg/Ha (2020-21). Pesticide consumption has increased by 20 per cent from 137 gm ai/ha 2014-15 to 164 gm ai/ha in 2022-23. Pesticide usage has seen a 20 per cent growth, rising from 137 gm ai/ha to 164 gm ai/ha between 2014-15 and 2022-23. Further, campaigns on Integrated Pest Management (IPM), biological control measures, and seed treatment are being conducted to promote judicious use of fertilizer and pesticides.

Figure 3.7 | Total Fertilizer consumption per ha of land

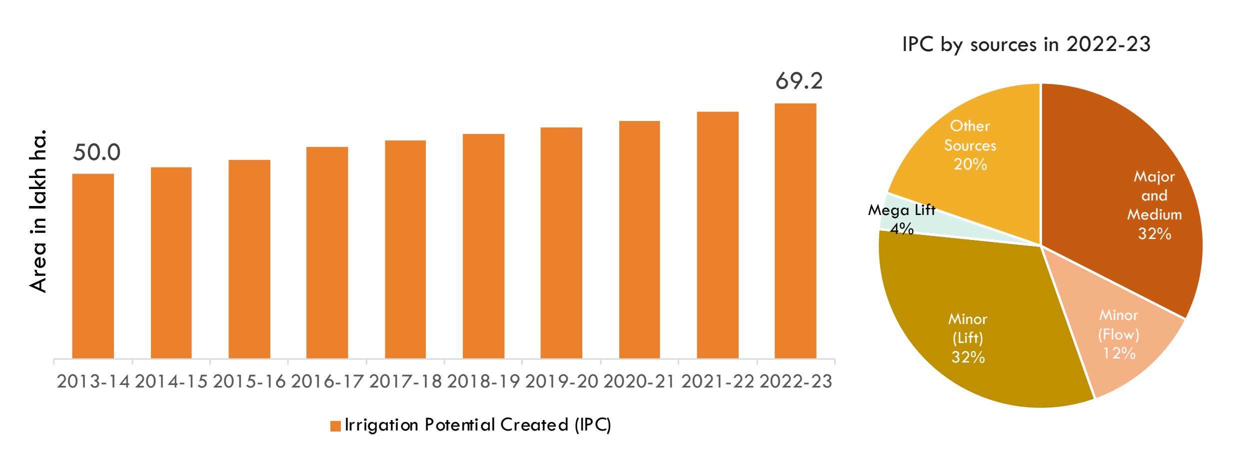


Source: Directorate of Agriculture & Food Production, Government of Odisha

iii. Irrigation

3.6.5 Irrigation is a critical input for the development of agriculture. The state receives around 1400mm of rainfall annually with maximum rainfall during monsoon season. There are several parts in the State which are prone to drought. Further, occurrences and duration of dry spells have been rising due to impact of climate change. Thus, irrigation infrastructure is very important for the development of agriculture in the State. Irrigation potential created in the State has increased from 50 lakh hectares in 2013-14 to 69.2 lakh hectares in 2022-23 (Figure 3.8). Out of 69.2 lakh ha, 48 lakh ha irrigation potential is created for crops in Kharif season, and 21.3 lakh ha is available in Rabi season (Figure 3.8).

Figure 3.8 | Irrigation Potential Created (during kharif & rabi) and Sources of Irrigation



Source: Water Resources Department, Government of Odisha

Micro Irrigation

3.6.6 Government is implementing a micro irrigation scheme under per drop more crop of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) across all the districts in the State. The micro irrigation system is expected to increase water use efficiency, reduce water wastage, and increase yield and prevent weed growth. Sprinkler and drip irrigation system comes under micro irrigation. Sprinkler irrigation systems have been widely adopted for field crops like vegetables, spices, flowers, pulses, oil seeds and drip systems have been adopted for orchard crops. To promote use of micro irrigation systems, central government provides subsidy to the extent of 45 to 55 per cent of the cost. Additionally, the State Government provides top up assistance of 15 to 25 per cent of total cost over and above the central government assistance. In this manner, farmers get subsidy of 60 to 80 per cent of total cost of the project. This scheme has covered more than 2 lakh ha in medium and upland area of the State, benefiting about 1.5 lakh households.

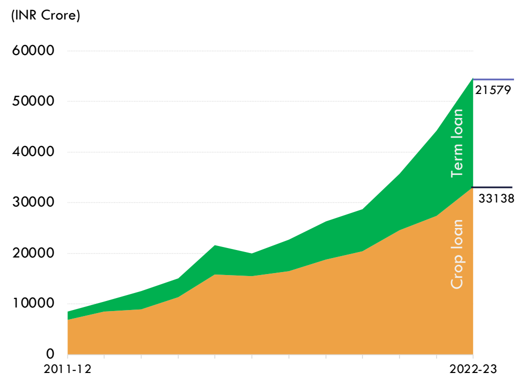
iv. Credit

3.6.7 Agricultural credit plays an important role in driving agriculture growth. Credit helps farmers meet their working capital needs as well as capital investment needs. Government has introduced several schemes like interest subvention scheme, BALARAM, SAFAL etc for increasing credit flow to agriculture in the State. Since 1st April 2022, Government of Odisha has made dispensation of crop loan up to INR 1.0 lakh at zero per cent interest rate per annum (Interest free loan) and 2 per cent for Crop Loan above INR 1.0 lakh up to INR 3.0 lakh, for timely paying farmers.

3.6.8 Credit uptake has increased in the State because of various interventions for providing credit to farmers. Agriculture credit disbursement has increased in state from INR 8,520 crores in 2011-12 to INR 54,717 crores in 2022-23 growing at a CAGR of 18.4 per cent during the same period. In 2022-23,

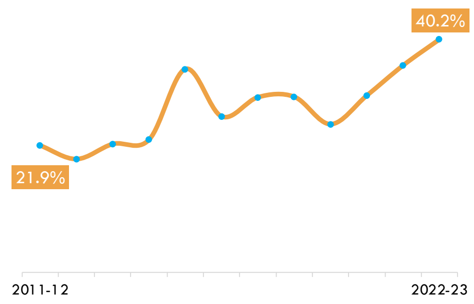
agriculture credit has increased by 23.6 per cent over the previous year (Figure 3.9). As a result, credit to Agri-GSVA ratio has increased in the State from 21.9 per cent in 2011-12 to 40.2 per cent in 2022-23 (Figure 3.10). But credit to agriculture GSVA ratio in Odisha is still lower than all India level of 47.5 per cent in 2022-23.

Figure 3.9 Credit Disbursement in INR Crore



Source: SLBC, Odisha

Figure 3.10 Agricultural Credit as % of Agri GSVA



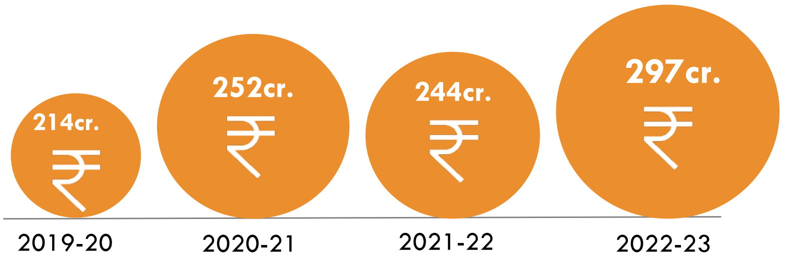
Source: SLBC, Odisha & Directorate of Economics and Statistics, Government of Odisha

Crop loan, which is a major component of agricultural credit, provides short-term advances for the purchase of working capital like seeds, fertilizers, wages etc. In FY 2022-23, crop loan disbursement amount has increased by 20.7 per cent to INR 33138 crore (Figure 3.9). Term loan, which has a longer tenure, is provided for capital investment like purchase of machineries, pump-sets, upgrading farm facilities, installation of solar pumps etc. Term loan disbursement amount reached INR 21579 crores in 2022-23, registering growth of 28.5 per cent over 2021-22.

v. Mechanisation

3.6.9 Farm mechanization plays a crucial role in enhancing agricultural productivity and reducing farm drudgery. The adoption of advanced farm machinery and equipment not only ensures efficient utilization of agricultural inputs but also brings about a positive impact on overall agricultural practices. Regional Krushi Jantrapati Melas are being organised across the State to popularise various farm machinery and equipment. To increase adoption of farm equipment, subsidies are being provided for purchase of machineries and entire process of subsidy administration is made online to make the process hassle free, release subsidy on time and increase transparency. In 2022-23, INR 297 crore has been released towards subsidy for purchase of machineries which is 22 per cent higher than the previous year (Figure 3.11). In terms of various farm equipment, 12948 tractors and power tillers, 3235 rotavators and 161 combine harvesters were subsidised in 2022-23. In total, 50440 farm equipments were bought with subsidy..

Figure 3.11 Amount of subsidy paid to farmers for the purchase of Machineries (In INR Crores).



Source: Directorate of Agriculture and Food Production, Government of Odisha

Figure 3.12 | Purchase of farm implements under subsidy

Source: Directorate of Agriculture and Food Production, overnment of Odisha

Besides, government is promoting establishment of custom hiring centres/farm banks by giving capital investment subsidy. Farmers can rent machineries from CHCs/Banks. Since more than 90 per cent of holdings are small and marginal categories, ownership of high-end machineries may not be economically viable. Through the custom hiring centres, farmers will be able to access high end machineries. As on 3rd February 2024, there are 2800 Agro custom hiring centres operating in the state (Figure 3.12).

vi. Crop Insurance

3.6.10 The State has been implementing Pradhan Mantri Fasal Bima Yojana (PMFBY) since 2016 as flagship scheme to protect farmers against crop losses and crop failures in case of unforeseen events. Under PMFBY, farmers are required to pay a nominal premium of 2 per cent and 1.5 per cent of the total premium in case of Kharif and Rabi seasons respectively while the remaining premium are paid by the Central and State government. All farmers including sharecroppers and tenant farmers growing the notified crops in the notified areas are eligible for coverage.

SECURE CROPS, SECURE FARMERS

Key benefits for farmers in Odisha under

PMFBY Coverage from sowing to harvest.

All farmers growing notified crops in notified areas are eligible for coverage

8 kharif crops and 9 rabi crops covered.

Nominal premium of 2% for kharif crops, 1.5% for rabi.
Odisha government bears farmer's share of premium up to 2ha per farmer from kharif 2023.

Progress

22.6 lakh farmers covered in kharif 2023, as against 11.7 lakh farmers in kharif 2022.

15.3 lakhs ha. covered in kharif 2023, as against 9.8 lakhs ha. in kharif 2022.

INR 560.6 and INR 10.0 crore were settled during Kharif & Rabi 2022-23.

3.6.11 From Kharif 2023 to Rabi 2025, Odisha Government has decided to bear farmers' share of the premium up to two hectares per farmer. This will help especially small and marginal farmers in the State. A token money of INR 1.0 per application is to be paid by insured farmers as a token of enrolment for validation of application. For Kharif 2023, the crops covered under PMFBY include Paddy, Maize, Groundnut, Ragi, Cotton, Arhar, Ginger, and Turmeric.

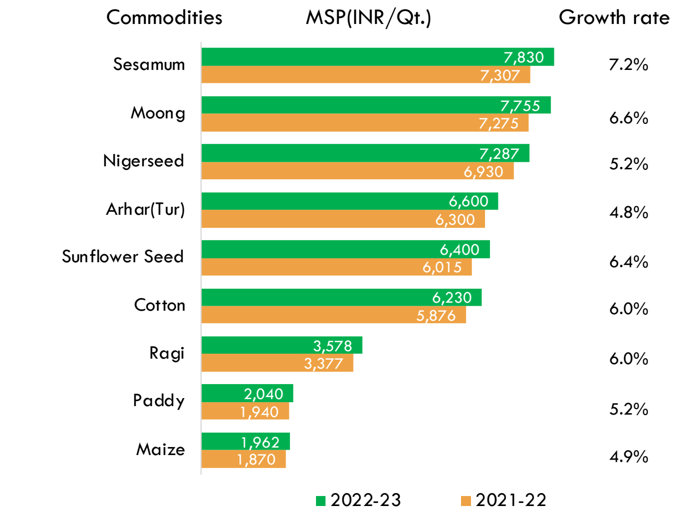
3.6.12 The acceptability of the scheme has been increasing in the State. During Kharif-2023, 22.6 lakh farmers with area of 15.3 lakh hectares enrolled under PMFBY as against 11.7 lakh farmers with area of 9.8 lakhs hectares in Kharif-2022. During Kharif-2022 claim amount of INR 560.6 crore has been settled benefitting 13.56 lakh farmers in the state, while in Rabi 2022-23, claim amount of INR 10.02 crore has been settled, benefiting 28,774 farmers in the state.

vii. Procurement and Agricultural marketing

a. MSP and Procurement

3.6.13 Government of India fixes minimum support price (MPS) for 22 crops with a margin of at least 50 per cent over the cost of production to ensure better return for the farmers. MSP for the major crops for the year 2022-23 is given in Figure 3.13. Prices of all the crops have been increased over the previous year by 5-7 per cent. Price of paddy, which is a dominant crop in the State, has been set at INR 2040 (for common variety) per quintal which is 5.2 per cent higher than the last year price. The most significant increase was observed in sesamum (7.2 per cent) and least in maize by 4.9 per cent. Ragi is being procured as part of promotion of the crop under Odisha Millet Mission. Ragi MSP price has been set at INR 3578 per quintal which is 6 per cent higher than the prices in 2021-22. This will benefit mostly tribal farmers in the State. Similarly, MSP for pulses has increased by 6.6 per cent in case of moong and 4.8 per cent in case of arhar. Prices of cotton has been increased by 6 per cent (Figure 3.13).

Figure 3.13 | MSP for key crops in 2021-22 and 2022-23

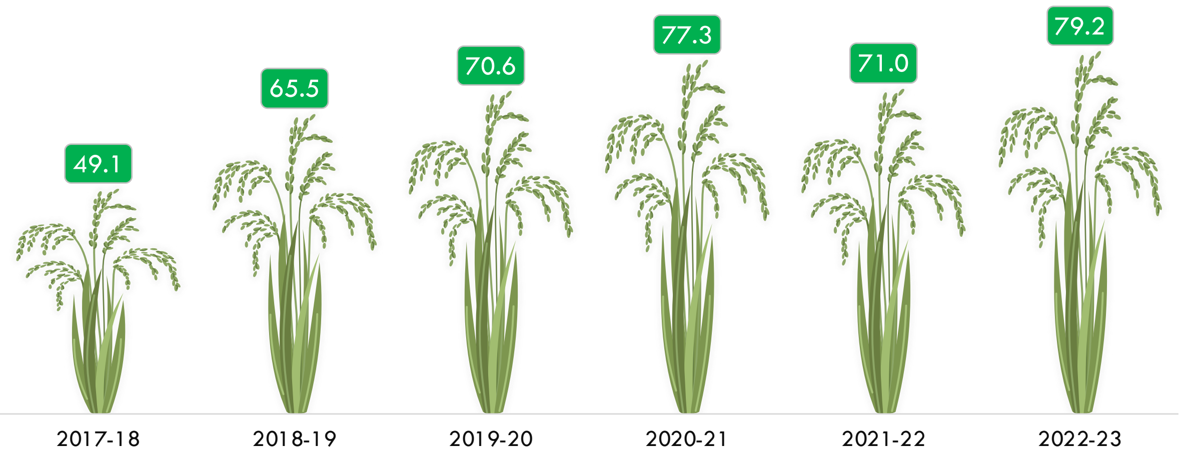


Source: Food, Supplies & Consumer Welfare Department, Government of Odisha

Paddy Procurement

3.6.14 Odisha State Civil Supplies Corporation Ltd is the state nodal agency for procurement of paddy in the State. Primary Agricultural Cooperative Societies (PACSs) are involved in the procurement process as agents of OSCSC Ltd. Additionally, WSHGs and pani panchayats are also involved in procurement of paddy in the State. Paddy procurement has consistently increased as paddy production in the state benefiting large number of farmers. Paddy procurement since 2017-18 to 2022-23 is given in Figure 3 14. But the procurement of paddy had declined in 2021-22 due to cyclone and also decline in paddy production in that year. In 2022-23, 79.2 lakh MT of paddy was procured which was 11.4 per cent higher than the procurement in the previous year.

Figure 3.14 Paddy Procurement in lakh MT



Source: Food, Supplies & Consumer Welfare Department, Government of Odisha

Procurement of Pulses, Oilseeds and Groundnut under PSS

3.6.15 The Price Support Scheme (PSS) is an initiative that enables the physical procurement of pulses, oilseeds, and coconut at Minimum Support Price (MSP) by the National Agricultural Cooperative Marketing Federation of India Ltd (NAFED) and the Food Corporation of India (FCI). In Odisha, the State Cooperative Marketing Federation Ltd (MARKFED) has been appointed as the State Level Supporter (SLS) for the procurement of oilseeds (Groundnut & Sunflower Seeds) and pulses (Green Gram & Black Gram) on behalf of NAFED under the Price Support Scheme (PSS). Further, PACS / Large Area Multi-Purpose Cooperative Societies (LAMPCS), Regulated Market Committees (RMC), and Farmer Producer Organizations (FPOs) act as agents of MARKFED for procurement process. Under the PSS scheme, 1878.9 MT of Green Gram (Mung), 116.9 MT of groundnut pods, and 87.7 MT of sunflower seeds were procured in the Rabi season of 2022-23. In 2021-22, a total of 4072.4 MT was procured which was 25 per cent higher than the previous year.

Procurement of Millets

3.6.16 The Government has been implementing millet mission since 2017-18 to promote millets, intending to revive their presence in farms and on plates. As part of that initiative, the state has also extended support to millet farmers by procuring millets at MSP. In KMS 2022-23, arround 6 lakh quintals of millets were procured from 59,621 farmers in the State. Given the nutritional benefits of millets, the Government of Odisha has introduced millets in the Public Distribution System (PDS), Integrated Child Development Scheme (ICDS), and Mid-Day Meal (MDM) schemes in the state from the year 2022-23.

b. Agriculture Marketing

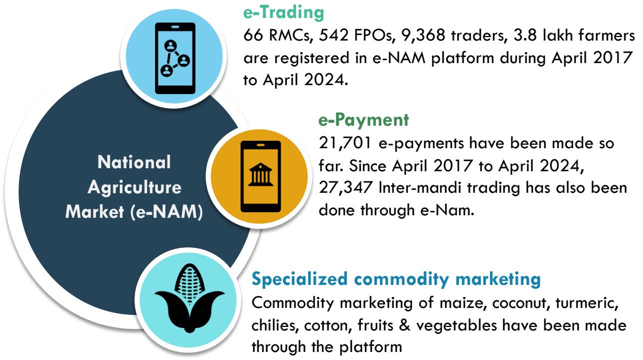
3.6.17 Agricultural marketing is a crucial link that connects farmers with markets, enabling them to secure competitive and remunerative prices for their produce. In Odisha, the Agricultural Marketing sector, operated by the Directorate of Agricultural Marketing (DAM) and the Odisha State Agricultural Marketing Board (OSAM Board), has been working to improve performance of agriculture marketing and ensure better price discovery for farmers in the state. DAM provides marketing support to farmers for marketing of their produce and strengthening infrastructure for marketing of agricultural produce. The

OSAM Board, the apex statutory organization of all Regulated Market Committees (RMCs), provides a common platform for farmers and traders to market agricultural produce without intermediaries. The state has established 66 RMCs, 54 principal market yards and 564 sub-market yards. Additionally, 204 GP markets operate under the RMCs, ensuring orderly marketing of agricultural products. Besides the RMCs are also playing a key role in the MSP operation of Paddy, Groundnut, Maize, and Cotton. In order to encourage direct marketing of vegetables to the consumers by the farmers, several Krushak Bazars have been established in the State.

3.6.18 The OSAM Board has already chalked out a roadmap for upgrading the Mandis / Market Yards under RMCs for facilitating paddy procurement operation & other Agri-Marketing activities by utilizing the surplus fund of RMCs. The state has proposed 52 model mandis, with six to be operationalized on a pilot basis. These mandis will offer modern amenities for ease of doing business. There is need to promote value addition for various products by establishing modern value chains and promoting agri-preneurs in the State.

National Agriculture Market (e-NAM)

3.6.19 With the objective of integrating markets across the country through a common online market platform, e-NAM was established. It promotes better marketing opportunities for farmers/sellers by providing real-time price information based on supply and demand of Agri-commodities. All the 66 RMCs in the state have been integrated with National Agriculture Market (e-NAM) to provide wider access to the producers to larger markets across the country and realize optimum competitive price for agricultural produce.



Source: Department of Co-operation, Government of Odisha

During April 2017 to April 2023, 3.8 lakh farmers, 542 FPOs and 9,368 traders are registered under e-NAM platform in the State. During these periods, 21,701 e-payments amounting to INR 3625.27 crore has been realized through e-NAM platform. Arround 27,347 Inter-mandi trading has also been conducted through e-NAM, thereby benefitting farmers across the state fetching them remunerative price. Farmers are benefitted immensely through e-Payment system under e-NAM platform.

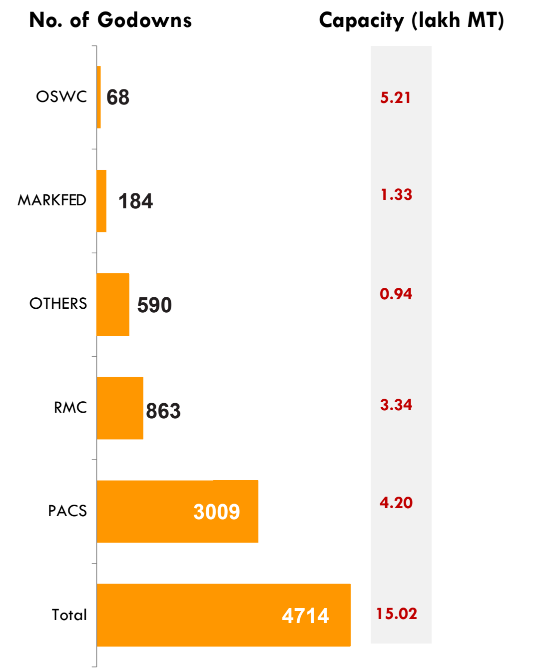
3.6.20 Cold storage enables farmers to preserve their crops and secure supply throughout the year instead of selling during harvest period at low prices. This allows farmers to negotiate for better prices rather than engaging in distress selling. In Odisha, there are 36 operational cold storages available in different districts, with total capacity of 1.79 lakh MT. Among these, 32 cold storages are privately owned, and 4 cold storages are operated by Govt./Co-operative. Sambalpur and Khordha districts have the highest number of operational cold storages in the state. There is a need to increase cold storage across districts in the State for reducing distress selling and ensure remunerative prices to farmers.

Development of warehouses

3.6.21 Warehouses/godowns aid farmers in preserving and storing crops, seeds, etc., for marketing and consumption purposes throughout the year. Due to the increased agricultural production capacity in Odisha, there is a need for more warehouses/godowns facilities to store and protect crops. Currently, the state has 4714 godowns with a total capacity of 15.02 lakh MT. Maximum number of godowns is owned by Primary Agricultural Cooperatives (PACs) with a capacity of 4.20 lakh MT, followed by Regulated Market Committee (RMC) with total capacity of 3.34 lakh MT (Figure 3.15).

3.6.22 The Odisha State Warehousing Corporation (OSWC) manages 68 warehouse/godowns across 30 districts, representing one-third of the state's total storage capacity. These warehouses primarily focus on scientifically storing foodgrain from the Odisha State Civil Supplies Corporation and the Food Corporation of India for distribution under the Public Distribution System (PDS) and other government welfare schemes.

Figure 3.15 | Warehouse and its capacity in Odisha

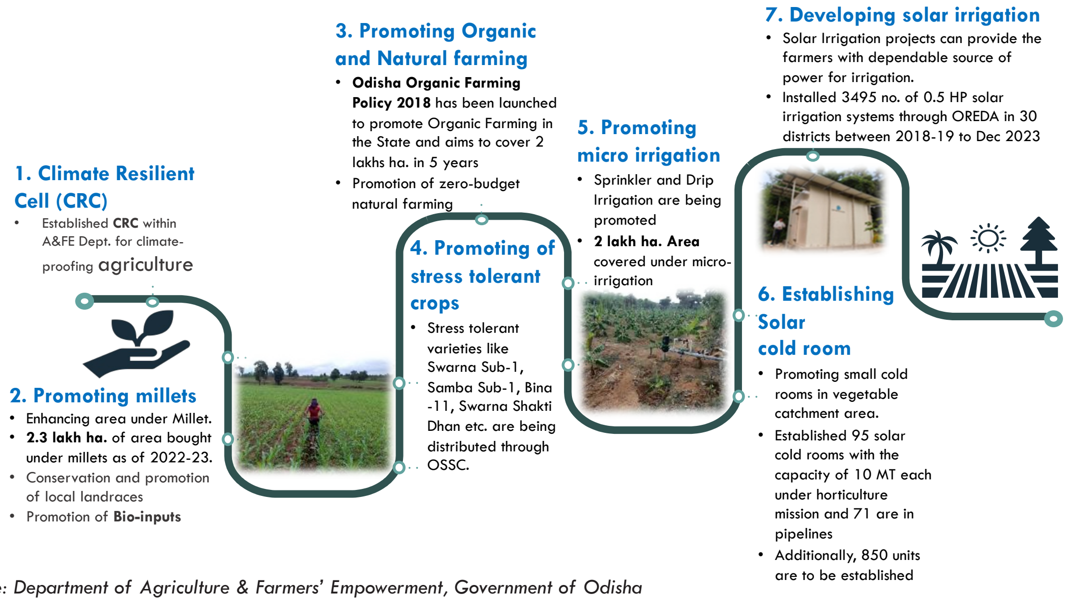


Source: Directorate of Agriculture & Food Production, Government of Odisha

3.7 Climate Smart Agriculture

3.7.1 Agriculture is the victim as well as contributor to climate change. Climate change is expected to impact agriculture disproportionately and more so marginal and small holder farmers among various sectors of the economy. Rising temperature, increasing variability in the rainfall, long dry spells etc. are expected to impact agricultural yield and production. In order to minimize climate change impacts and improve resilience of agriculture, the State has been promoting climate smart agriculture practices. This approach focuses on building resilience to climate change and reducing greenhouse gas emissions from farming. The State has established a 'Climate-Resilience-Cell' within Agriculture & Farmers' Empowerment Department to facilitate implementation of climate resilient practices and policies in agriculture. As a part of sustainable agriculture, climate resilient practices like micro irrigation, millets cultivation, organic farming, and stress-tolerant seeds etc are being promoted in the State. Some of the climate smart agricultural practices being promoted by the State is given in Figure 3.16.

Figure 3.16 Some initiatives under climate smart agriculture



Source: Department of Agriculture & Farmers' Empowerment, Government of Odisha

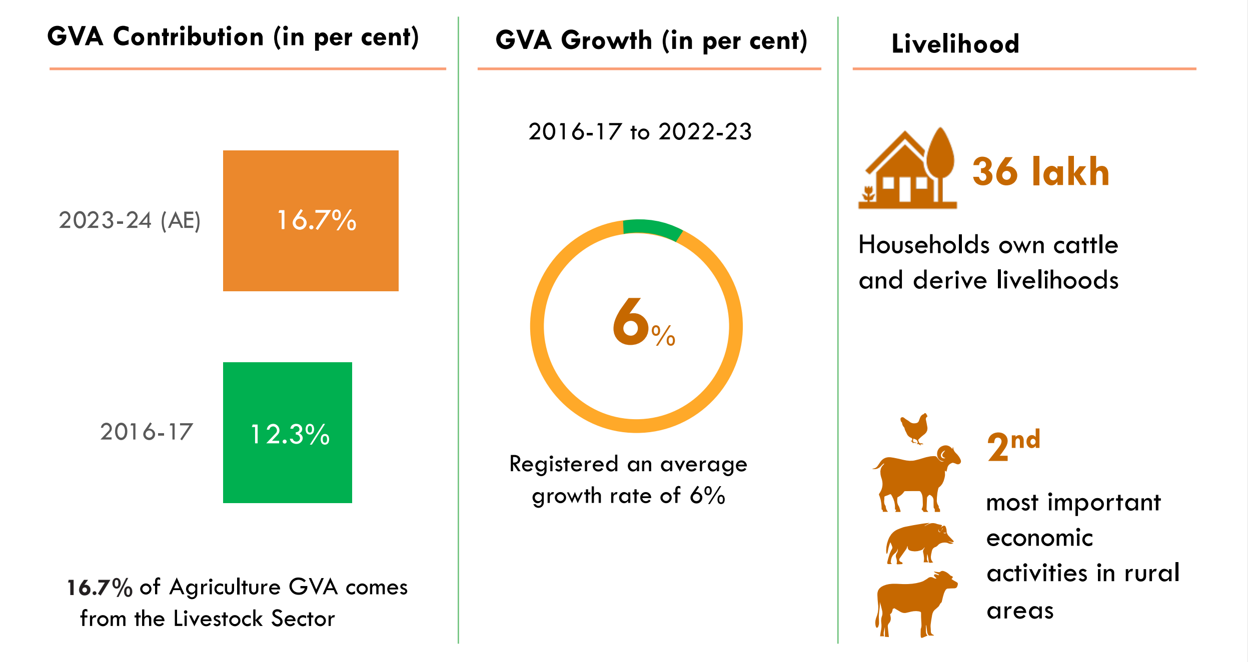
3.8 Development of Livestock Sector

3.8.1 Livestock sector plays an important role in enhancing income and livelihood of rural households and ensuring nutritional security. Livestock rearing is the second most important economic activity after crop production in rural areas[1]. About 85 per cent of the livestock population in Odisha is owned by landless labourers, marginal and small land holders[2]. Livestock ownership improves resilience of rural households and helps them overcome crop failure and meet unforeseen expenses by trading of livestock assets. Development of livestock aids growth of crop sector by providing inputs like manure, vermicompost, bio-pesticides, drought power etc for crop cultivation and by drawing inputs like feed, fodder etc.

3.8.2 The contribution of the livestock sector to agriculture GSVA has increased from 12 per cent in 2016-17 to 17 per cent in 2023-24. During this period, the livestock sector has registered an average growth rate of 6 per cent. The livestock sector has been emerging as key drivers of agriculture growth in the country. There is need to develop livestock sector in the State. Rise in per capita income and coupled with awareness about dietary diversity and consumption of protein rich foods will aid growth of livestock sector further. Given the potential of the sector, Committee on Doubling Farmers' Income (DFI) considers dairying, livestock, poultry, fisheries, and horticulture as high-growth engines and has recommended a focused policy for the same.

[1] ILRI, https://www.ilri.org/news/indias-odisha-state-launches-master-plan-spur-livestock-sector-investment-and-growth accessed on 18th January 2024.

[2] The Odisha Livestock Sector Strategy, 2022, ILRI



Source: Directorate of Economic & Statistic, Government of Odisha; Livestock Census 2019, Government of India

i. Livestock Population

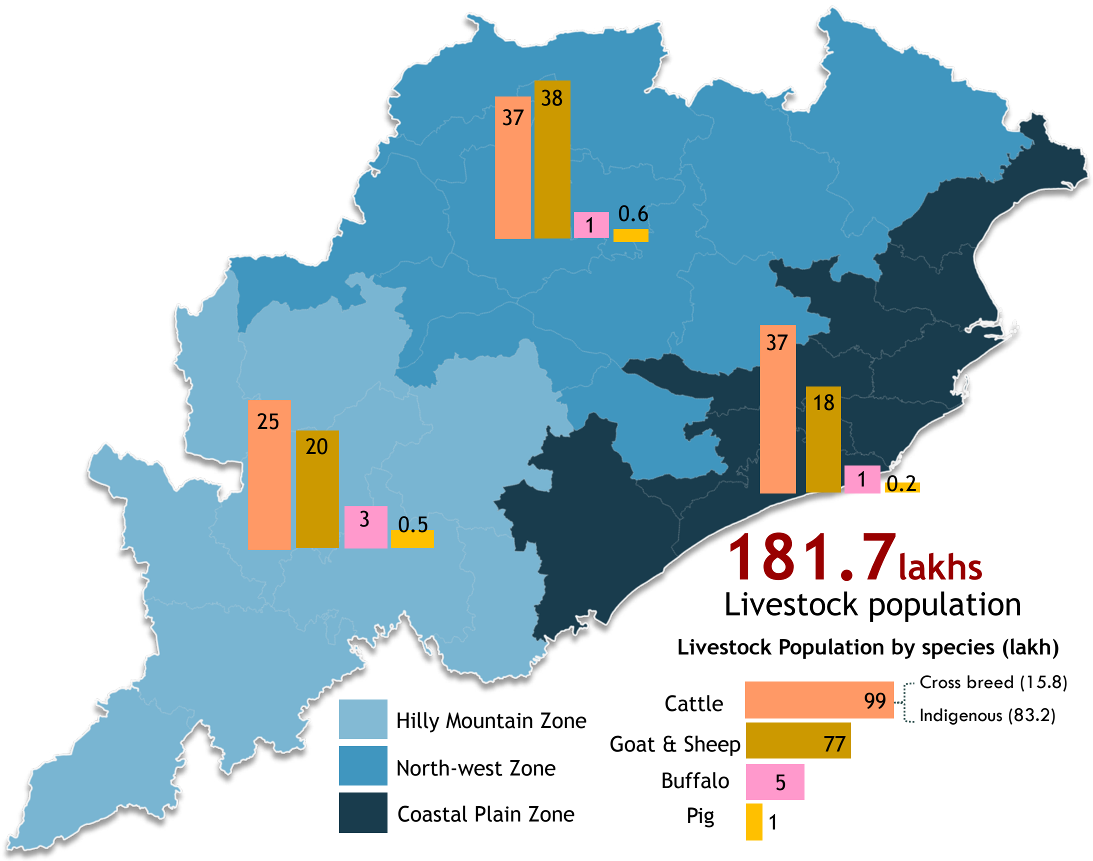
3.8.3 Odisha has three livestock production zones based on agroecological criteria and these zones include- 1) hilly and mountain, 2) northwest and 3) coastal plain zone. As per 20th livestock census, Odisha had livestock population of around 181.7 lakh accounting for 3.4 per cent of India's livestock population. Odisha has a share of 5.1 per cent in the total cattle population of India. Odisha ranks 10th in Cattle & Poultry population and 9th in terms of Goat and Sheep population in the Country. Livestock population by species and zones is given in Figure 3.17. North-west zone accounted for 42 per cent of total livestock population in the State while Coastal plain had 31 per cent share. .

ii. Milk Production

3.8.4 Milk Production in Odisha has increased by 3.1 per cent in 2022-23 to reach 24.8 lakh metric tonnes (MT). In the same year, milk production at all India level has increased by 3.8 per cent. Milk production has consistently increased in the state over the years as depicted in Figure 3.18. Between 2012-13 and 2022-23, milk production in the state has increased by 39 per cent and 3.3 (CAGR) per cent on an annual basis. The per capita availability of milk has also increased in the state from 114 grams per day in 2012-13 to 148 grams/day in 2022-23. But per capita availability of milk in Odisha is still lower than all India average of 459 grams/day. There is need to increase growth of milk production in the State by increasing yield and increasing share of high yielding cows.

3.8.5 In terms of composition of milk, cow milk has a large share in total milk production in Odisha while at All India level both cow and buffalo have almost equal share in total milk production. Cow milk contributed 98 per cent of total milk produced in the State in 2022-23 while buffalo milk constitutes around 2 per cent of total milk produced in the State. There is a strong preference for cow milk in the state. At all India level, 52 per cent of milk production comes from cows and 45 per cent from buffaloes and remaining portion comes from goat milk. The share of goat milk is negligible in Odisha (0.2 per cent in 2022-23). Both in Odisha and India, the share of buffalo milk has been declining and the share of cross breed cows in total

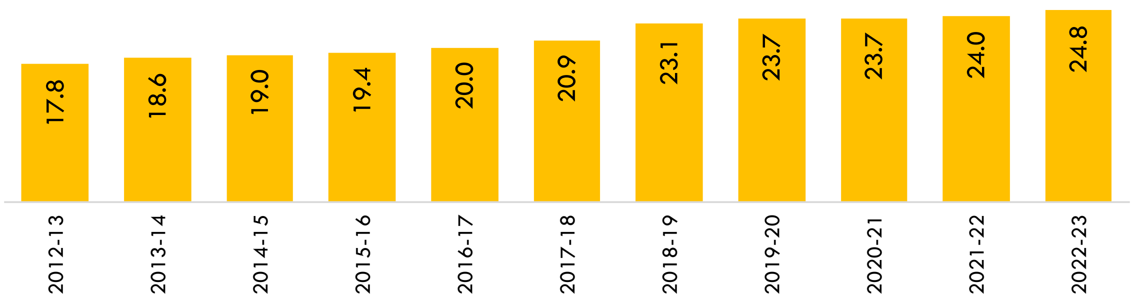
Figure 3.17 | Livestock Population by livestock production zones



Source: Livestock Census 2019, Government of India; Fisheries & Animal Resources Development Department, Government of Odisha

milk has been increasing because of high yield of cross breed cows and increase in genetic improvement of cows through artificial insemination.

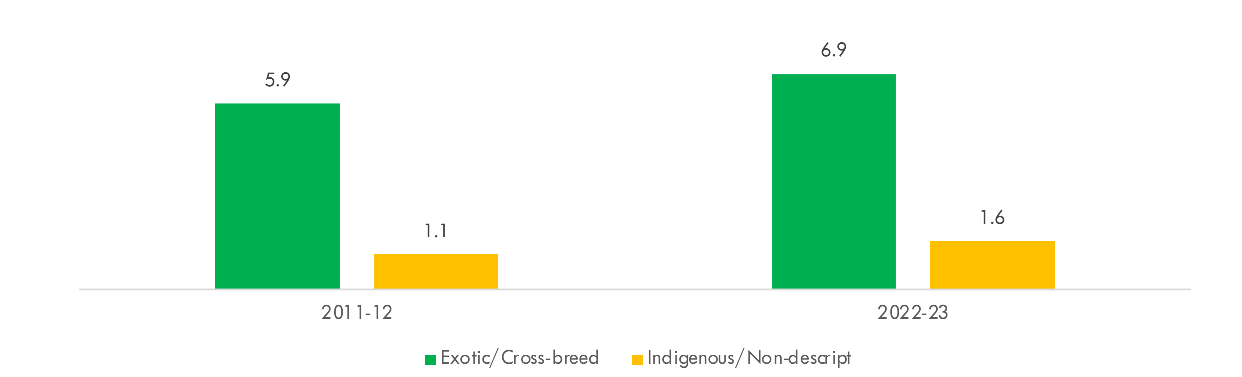
Figure 3.18 | Milk Production in Odisha (in lakh MT)



Source: Directorate of Animal Husbandry & Veterinary Services Government of Odisha; Basic Animal Husbandry Statistics, Government of India

3.8.6 Yield of both crossbreed and indigenous cows have increased over the time in the State. Yield of cross breed cows have increased from 5.9 kg/day in 2011-12 to 6.9 kg/day in 2022-23 (Figure 3.19). However, yield of cow is low in Odisha as compared to all India average for both cross breed and indigenous cows. In case of cross breed cows, yield in Odisha is 20 per cent lower than all India average while in case of indigenous/non-descript cows, yield gap is around 121 per cent. This indicates there is need to increase yield of cows through proper feed, health management and genetic improvement of breeds.

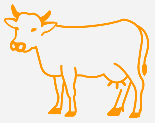
Figure 3.19 | Milk yield by type of animal (kg/day/animal)



Source: Basic Animal Husbandry Statistics 2023, GoI

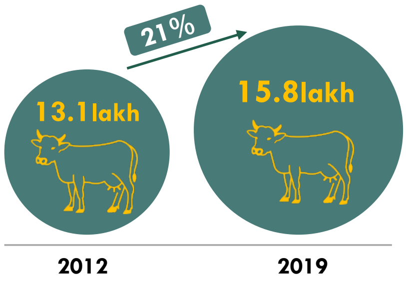
iii. Breed Improvement

3.8.7 Enhancing livestock productivity is important for increasing milk production and enhancing farmers income. Yield can be increased through proper feed and health management, basis upon genetic potentiality of cattle. To improve genetic potential of cattle and buffaloes, the government has started artificial insemination programme. The Odisha Bovine Breeding Policy 2015 has been formulated for guiding the bovine breeding activities. As part of the breeding policy, government has undertaken several initiatives including strengthening frozen semen bank at Cuttack and semen depots in districts and expanding network of institutions and AI centres for doorstep delivery of AI services. Various NGOs, society and cooperatives have been engaged for smooth delivery of services. There are 4,512 centres providing AI services across the State. During 2022-23, a total of 13.2 lakh AI has been done in the state. Further, several steps have been undertaken to conserve and improve native cattle breeds like Binjharpuri, Ghumssari, Khariar and Motu and two buffalo breeds namely Chilika and Kalahandi. Further, Odisha is also implementing Nationwide Artificial insemination Programme, Phase-IV (NAIP-IV) in all the districts since August 2022.



- Odisha brought '**Odisha Bovine Breeding Policy 2015**' to improve genetics of cows
- **4512 centres** providing AI services across the state.**13.2 lakhs** of breed-able cattle and buffalos in 2022-23
- **1.4 lakhs are** covered under sex-sorted AI

3.8.8 Further, to produce superior genetic female calves and increase cattle population in the State, Artificial Insemination through Sex Sorted Semen was launched in April 2022. In case of AI through sex sorted semen, there is 90 per cent probability that female calves will be born. A total of 4 lakh AI is targeted to be completed over the next 3 years. So far, 1.4 lakh AI under this initiative has been completed.



3.8.9 Because of the genetic improvement initiatives, number of cross breed cows has increased by 21 per cent between 2012 and 2019 livestock censuses, and contribution of cross breed cows to overall milk production has increased from 41 per cent in 2012-13 to 64 per cent in 2022-23. Still, a large proportion of herd constitutes indigenous cattle which are mostly reared by small and marginal farmers.

iv. Green Fodder Production

3.8.10 Green fodder is important for meeting nutritional requirement of milch cows and enhancing milk yield. Further, pasture land has been declining in the state over the years. This makes increasing green fodder production is important for meeting fodder demand of cows. Government has taken several initiatives like distribution of seasonal minikits, subsidy for perennial fodder production, distribution of chaff cutter, fodder seed production, training, and demonstration among others. During 2022-23, 30,133 fodder minikits were distributed with a coverage of 7533.5 acre. In 2022-23, 2580.38-acre area was brought under perennial fodder production and 376.7 MT of green fodder was produced. There is still significant gap in availability of green fodder in the State. There is need to increase green fodder production in the State to meet fodder demand through dedicated efforts and promotion of fodder entrepreneurs.

v. Infrastructure Development

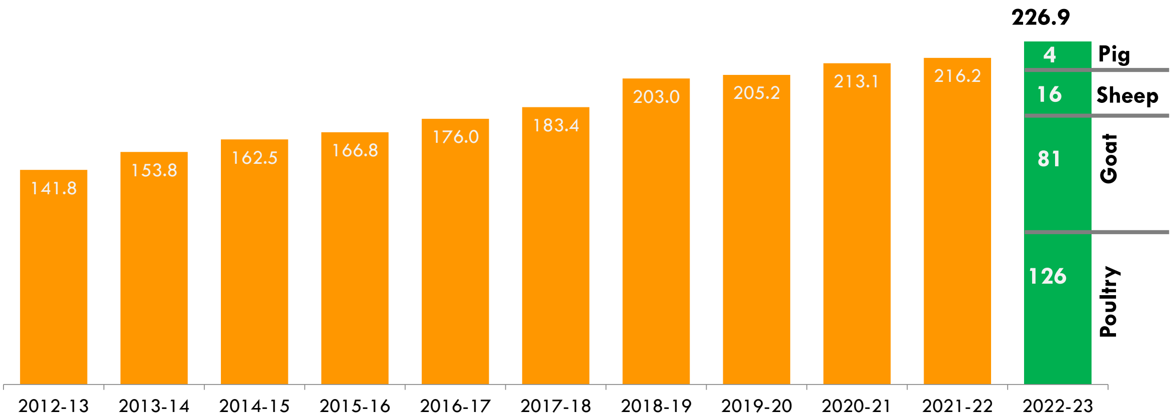
3.8.11 Infrastructure development is critical for growth of diary and animal husbandry sector in the State. The state has undertaken several initiatives to develop various types of infrastructure from breeding infrastructure, to increasing veterinary institutions and to strengthening milk processing capacities. Number of dairy cooperative societies and members in the state has increased from 4878 and 2.5 lakh farmers respectively in 2011-12 to 6586 societies and 3.17 lakh milk farmers. OMFED is the largest milk processor procuring milk from MPCS (Mill Producer Cooperative Societies). Besides there are a few private diaries that procure and process milk in the state. The milk processing capacity has increased by 78 per cent in the last decade from 5 lakh litre a day to 8.9 lakh litre a day now. OMFED is processing 4.1 lakh litre a day while remaining is being processed by private companies in the state. Further, organized milk sector needs to be promoted and number of cooperatives need to be increased.

3.8.12 To cater to the health of livestock population, there are 541 veterinary hospitals, 3239 livestock aid centres and 4732 AI centres spread across the state. Further, State has launched Mobile Veterinary Unit as a flagship scheme during 2011-12 in 40 blocks of the State which was later extended to all the blocks (314) of the State. Through MVU, various types of services like healthcare, breeding & advisory services being provided to the farmers at their doorstep. With the positive response for the scheme, these outsourced mobile veterinary unit vehicles have been replaced with own vehicles with additional provisions like provision of small animal OT, vaccine carrier, public address system etc. in 314 blocks for better livestock service.

vi. Meat Production

3.8.13 Meat production in Odisha has steadily increased overtime as shown in Figure 3.20. Meat production in the state has increased by 4.9 per cent in 2022-23 to reach 226.9 thousand MT against 216.2 thousand MT in 2021-22. Per Capita availability of meat has also increased in the state from 4 kg per annum in 2016-17 to 4.9 kg in 2022-23. Poultry is the dominant meat in the state accounting for 56 per cent of total meat production in 2022-23. Goat meat is second most preferred meat and constitutes 36 per cent of total meat production in the State. The demand for goat meat in the state is high and increasing, and it fetches a good price. Considering these factors, government has been promoting goat farming and other small ruminants to enhance farmers income.

Figure 3.20 | Meat production in Odisha (in 000' MT)

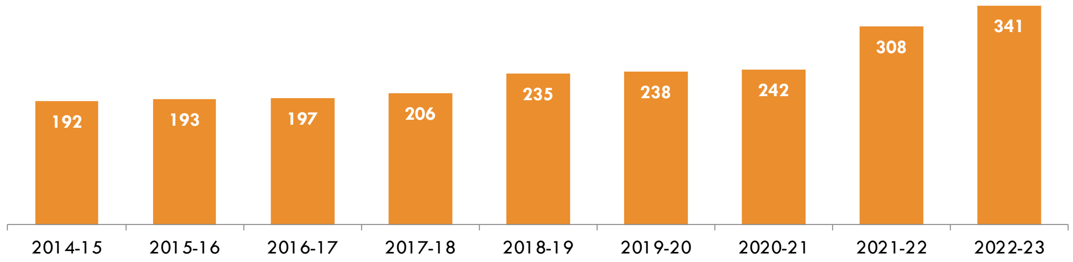


Source: Fisheries & Animal Resources Development Department, Government of Odisha

vii. Egg Production

3.8.14 Egg production has increased consistently in Odisha especially since 2014-15. During 2014-15 and 2022-23, egg production in Odisha grew at a CAGR of 7.4 per cent. In 2022-23, egg production in the State has increased by 10.7 per cent to reach 341 crore eggs. As of 2022-23, Odisha ranks 10th in egg production in the country. Per capita availability of eggs has also increased from 45 eggs per annum in 2014-15 to 74 eggs in 2022-23. This is still less than the per capita availability of eggs at all India level (101 eggs/year). In terms of composition of eggs, duck has just 0.3 per cent share in total egg production while 99.7 per cent comes from fowl. 90 per cent of total egg production comes from improved commercial poultry and around 10 per cent comes from backyard poultry

Figure 3.21 | Egg production in Odisha (in crore Nos)



Source: Fisheries & Animal Resources Development Department, Government of Odisha

3.8.15 Rising disposable income, population growth and greater awareness of dietary diversity have been driving the demand for protein-rich products like eggs and chicken. In Odisha, there is a daily requirement of 120 lakh eggs against current production of around 95 lakhs per day. APICOL is tracking layer application and facilitating potential entrepreneurs/investors in providing requisite support and approval for setting up their farms under MKUY. There is a need to promote commercial poultry to increase egg production and per capita availability in the State.

3.9 Fisheries Development

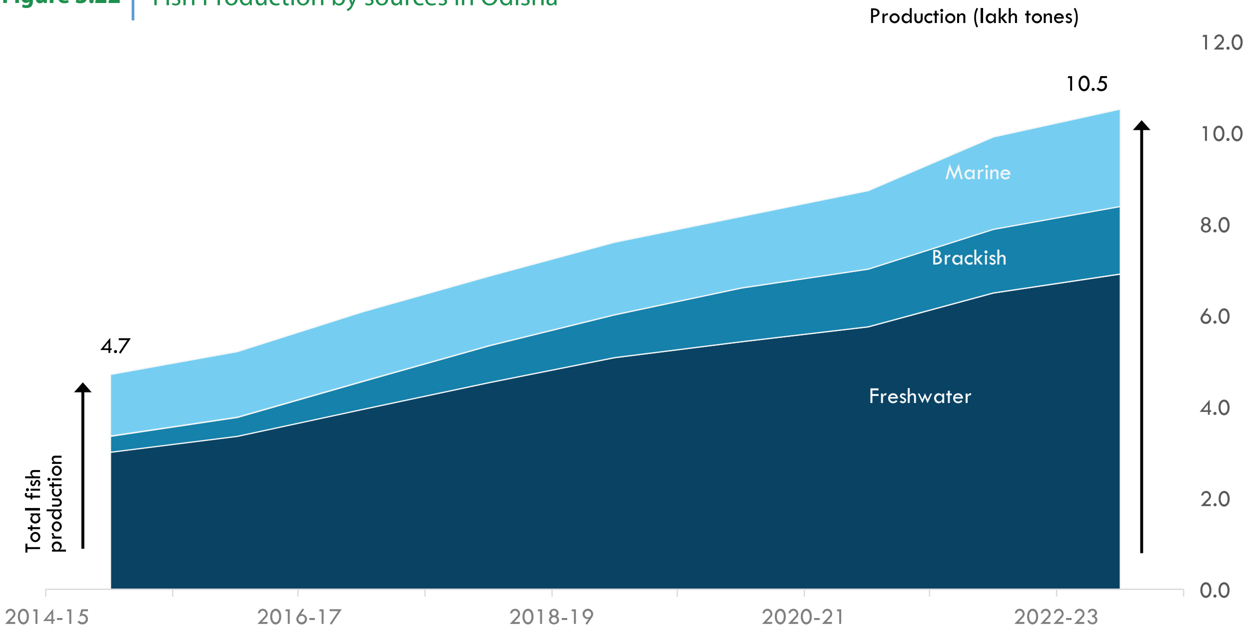
3.9.1 The fisheries and aquaculture sector play an important role in Odisha's economy. Fisheries sector contributes about 10.6 per cent of gross value added in agriculture and allied sectors in 2022-23. The sector has recorded double digit growth in the last decade. During 2011-12 and 2022-23, the fisheries sector GSVA in Odisha grew at a CAGR of 10.5 per cent. Besides its contribution to GSVA, fisheries sector contributes significantly to Odisha's exports, employment, and supports livelihood of people especially at the bottom of the pyramid in the State. Besides, it plays a critical role in meeting nutritional security as an affordable source of protein and various important minerals, vitamins, and omega-3 fatty acids.

3.9.2 Odisha is endowed with abundant inland, brackish water, and marine fishery resources. The state has 7.04 lakh hectares of freshwater resources, 4.18 lakh hectares of brackish water resources, and 480 km of coastline. Fisheries sector is regarded as a sunrise sector and has substantial scope for future growth. The following sections discusses performance of fisheries sector in the state.

i. Fish Production

3.9.3 Fish production has steadily increased in the State over time largely due to consistent growth in inland fish production. Odisha ranks 4th in total fish production in India. Between 2014-15 and 2022-23, fish production in Odisha grew at a CAGR of 10.6 per cent against 6.9 per cent at all India level. In 2022-23, fish production in Odisha has increased by 6.3 per cent over the previous year to reach 10.5 lakh tones.

Figure 3.22 Fish Production by sources in Odisha



Source: Directorate of Fisheries, Government of Odisha

3.9.4 Freshwater fish constitutes 66 per cent of total fish production while brackish water and marine fish accounts for 14 per cent and 20 per cent of total fish production respectively in 2022-23. Fish production from all these sources have registered significant growth rate. The share of fresh water and brackish water fish has increased on back of various govt. initiatives for these sectors.

3.9.5 Consumption of fish has also increased in the State. The per-capita annual consumption of fish in the state increased from 11.06 kg in 2014-15 to 17.73 kg in 2022-23 against national average of 6.3 kg per annum (2020-21). Odisha has been among top fish consuming states in India aided by increase in production and availability of fish across the state.

3.9.6 Major source of freshwater fish is tanks/ponds followed by reservoirs, rivers/canals and swamps/ lakes. Tanks contribute 83 per cent of total freshwater fish production, reservoirs contribute 11 per cent and remaining comes from canals and lakes. The share of reservoir has been increasing because focus on cage culture and initiatives like reservoir stocking with advance fingerlings. The significant rise in freshwater fish production has been possible due to various interventions like promotion of seed production, Matsya Pokhari Yojna, intensification through cage culture in reservoirs/biofloc, engagement of SHGs, promotion of scientific practices, diversification of species and mechanization among others.

3.9.7 Shrimps and crabs, as high-value fishing products and have both domestic and international markets. Shrimp production has increased by 4.6 per cent in 2022-23 to reach 127.7 thousand MT from 122.1 thousand MT in 2021-22. Between, 2014-15 and 2022-23, shrimp production in the State has increased at a CAGR of 22.4 per cent largely due to significant rise in production from brackish water culture. Crab production in 2022-23 has increased by 10.3 per cent to 8.32 thousand MT from 7.54 thousand MT in 2021-22.

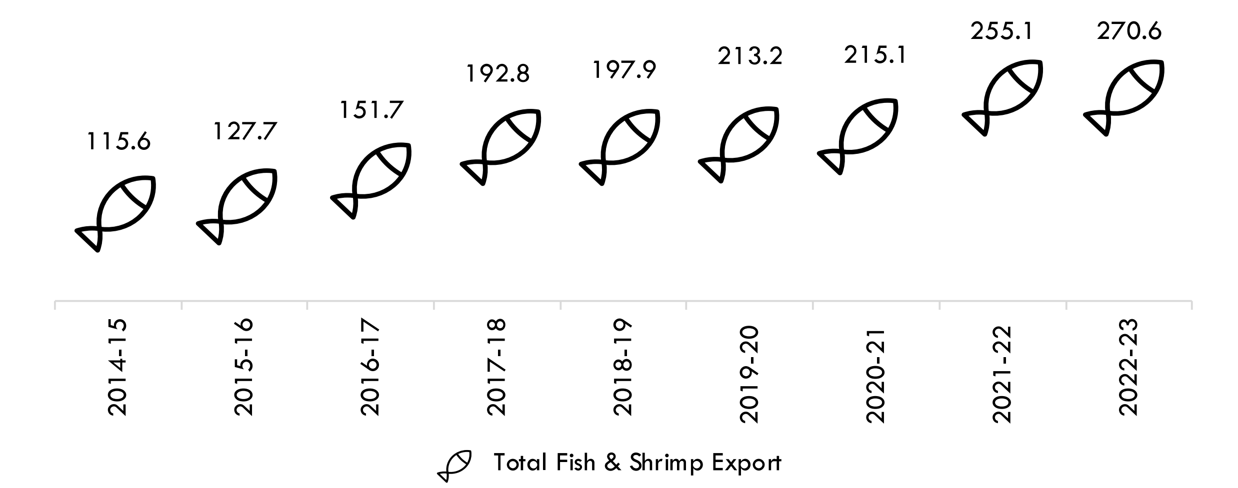
ii. Export and import of fish

3.9.8 Exports of fish products have increased consistently over time. Total exports to foreign countries and other states have increased at a CAGR of 11.2 per cent from 115.6 thousand MT in 2014-15 to 270.6 in 2022-23. Both marine and brackish water fish constitute 80 per cent of total exports. Exports from brackish culture have increased at a higher rate (21 per cent) than marine capture (7.2 per cent) during this period. In 2022-

23, total exports increased by 6.1 per cent to reach 270.6 thousand MT from 255.1 thousand MT in 2021-22 (Figure 3.23).

3.9.9 Exports to other countries have increased at a CAGR of 12.8 between 2014-15 and 2022-23. In terms of value, the State exported INR 4546 crore worth of fish products to other countries (Table 3.4). In terms of destinations, exports are mainly going to countries like USA, European Union, ASEAN, Japan, China, and Middle East Asian countries. Accordingly, the import of freshwater fish declined by 21.7 per cent in 2022-23 over 2021-22 indicating Odisha's reduced dependency on other states and abundant harvest within the state.

Figure 3.23 | Total exports of Fish products (to other states and countries) (000' MT)



Source: Directorate of Fisheries, Government of Odisha

Table 3.4 | Marine export to Foreign Countries

Year	Quantity Exports (000' TMT)	(Value INR In crore)
2014-15	32.47	1963.85
2015-16	35.61	1791.81
2016-17	41.83	2204.78
2017-18	53.34	2871.61
2018-19	62.51	2969.42
2019-20	66.65	3243.29
2020-21	60.72	3107.68
2021-22	86.76	4627.91
2022-23	85.31	4546.47

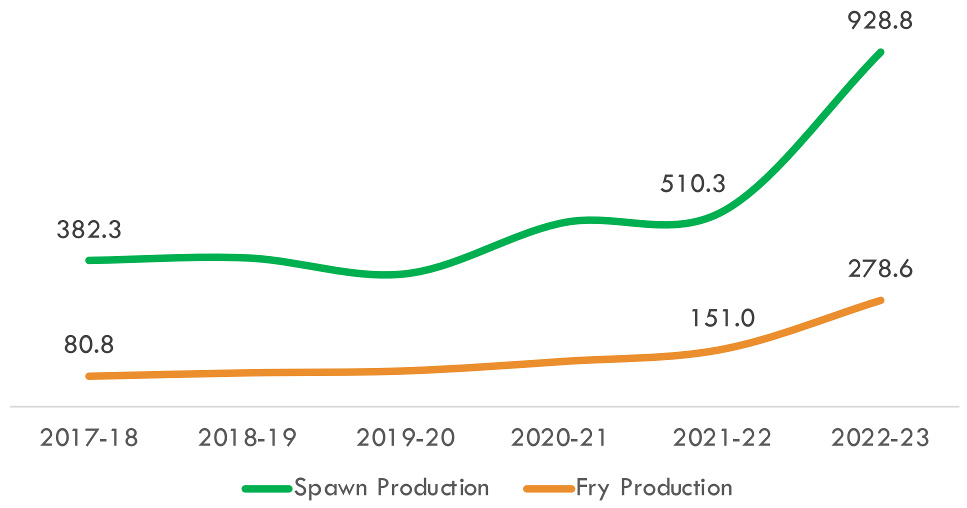
Source: Directorate of Fisheries, Government of Odisha

iii. Supply of seed

3.9.10 Fish production largely depends on quality of fish seed and fry. Several steps have been undertaken for increasing network of seed growers and hatcheries in private sector. These have resulted in significant growth in the production of fry and spawn in the state. This has helped the state to be self-sufficient in seeds and fry. Earlier, farmers from Odisha were getting seeds and fry from neighboring states. Spawn production

in Odisha has reached 928.8 crore in 2022-23 by growing over 82 per cent from 510.3 crore in 2021-22. Similarly, production of fry has increased by 85 per cent from 151 crore to 278.6 crore in 2022-23 (Figure 3.24). Private sector accounts for 81 per cent and 82 per cent of spawn and fry production, respectively, in the state, while remaining comes from government and OPDC hatcheries.

Figure 3.24 | Fish Spawn and Fry production (in Crore), Odisha



Source: Directorate of Fisheries, Government of Odisha

3.10 Forestry Sector

3.10.1 Forests play an important role in socio-economic development of the state, environment protection, and ecosystem management. Forestry provides a source of livelihood for tribal people, and contribute various economic products like timber, firewood, medicinal plants etc. Odisha has third highest tribal population in the country accounting for 22.8 per cent its total population. Rural masses also depend on forest for grazing their livestock. Forest cover helps reduce greenhouse gases and protection of flora and fauna and better bio-diversity management.

3.10.2 Forestry and logging sector contributed around 14 per cent of agriculture and allied sectors GSVA in 2023-24 (AE). Forestry sector GSVA has recorded a growth rate of at 5.5 per cent in 2023-24 against 0.8 per cent growth rate in 2022-23 (RE). Several initiatives have been undertaken to increase forest cover and also for socio-economic development of people in the forest fringe area. This section discusses forest coverage in the state, various initiatives undertaken for conservation and protection of forest, and livelihood development for people in the forest fringe areas.

i. Forest Cover

3.10.3 As per the latest forest survey of India, forest cover in Odisha stood at 52,156 square kilometers in 2021 which was 33.5 per cent of total geographical area in the state. Forest cover includes all lands more than one hectare in area with tree canopy density of more than 10 per cent[3]. Odisha is one of the 17 states which has more than 33 per cent of forest area as per the requirement of National Forest Policy. As compared to the previous estimates of 2019, forest cover in Odisha has increased by 537 square km which is third highest increase in the country. Odisha has 5004 sq. km. of tree cover outside forest area as of 2021. Total forest area and tree cover in Odisha stood at 57160 sq. km. which is 36.7 per cent of total geographical area in the state (Table 3.5).

[3] India State of Forest Report 2021, Forest Survey of India, (Ministry of Environment and Climate Change), Dehradun

In terms of forest classification, dense forest constitutes 14 per cent of total forest area, while moderately dense forest and open forest constitutes respectively 40 per cent and 46 per cent of total forest.

Table 3.5 Forest coverage by type of forests (Sq. Km)

Class	2021	2019
Very Dense Forest	7213	6970
Moderately Dense Forest	20995	21552
Open Forest	23948	23097
Total Forest Cover	52156	51619
Tree Cover	5004	4648
Total Geographical Area	155707	155707
Percentage of Forest Area (per cent)	33.5	33.2
Percentage of Forest and Tree Area (per cent)	36.7	36.1

Source: Forest Survey of India, Dehradun, India

3.10.4 Odisha has mangrove cover of 259 sq. km. in 2021. There has been increase of 8 sq. km of mangrove, the highest increase in the country over the previous assessment of 2019. This has been possible because of natural regeneration and plantation activities in the suitable areas in the State. Mangrove forest is observed mainly in five districts- Balasore, Jagatsinghpur, Kendrapara, Bhadrak and Puri, in the State.

ii. Forest Protection and Management

a. Afforestation Programmes

3.10.5 Government of Odisha has been taking up afforestation activities every year under different plantation schemes. During 2023-24, a total of 5835.86 ha AR (Artificial Regeneration) Plantation, 37513.61 ANR (Assisted Natural Regeneration) with Gap Plantation, 3111.87 RKM Avenue Plantation & 4.53 lakh seedlings under Urban Tree Plantation have been achieved in different plantation schemes. Besides, 397.63 lakh seedlings have been distributed to the beneficiaries/institutions to create Green Belt in their Private Lands. Total forest and tree cover in Odisha stood at 57160 sq. km. which is 36.7 per cent of total geographical area in the state (Table 3.5).

b. Forest Protection

Following initiatives have been undertaken for forest protection in the State.

Strengthening of Protection Units

3.10.6 The forest protection units in the field comprise 51 Divisions (37 Territorial Divisions + 14 Wildlife Divisions), 300 Ranges (223 Territorial Ranges + 77 Wildlife Ranges), 1068 Sections (827 Territorial Sections + 241 Wildlife Sections) and 3781 Beats (3082 Territorial Beats + 699 Wildlife Beats). Steps are being taken for capacity building of forest officials for doing protection work and preventing illegal activities. Formation of Vana Surakshya Samities (VSSs) and Eco- Development Committees are regularly monitored to involve the local people for forest protection. The provisions under the Orissa Rewards for Detection of Forest Offences Rules, 2004 have been amended by increasing the reward amount to the informers.

Preventing Forest Fire through Technology

3.10.7 Odisha Forest Management System, an IT based platform, has been introduced to control forest fire and save forest resources including wild animals by tracking reported incidents and responding to the same in a timebound and coordinated manner for effective solution. Due to active participation of forest department staff, other line department and forest fringe villagers, during January 2023 to June 2023, 36321 fire occurrences were successfully responded. More than 26,000 reported fire incidents were successfully attended to in a timebound manner in summer season of 2022.

Joint Forest Management through Community Involvement

3.10.8 Community plays an important role in sustainable management of forest resources. They also depend on forest resources for their livelihood. Empowering communities will go a long way in forest protection and management. Government of Odisha is pioneer in the country in involving communities for the protection of forest under Joint Forest Management and under Odisha Forest Act 1972. JMM seeks to involve community in protection, regeneration and management of forest wealth and grants certain concession for meeting their requirements of firewood, small timber etc. JMM not only helps in managing forest resources but also provides employment and livelihood opportunities to forest-fringe dwellers. Vana Surakshya Samities have been formed comprising of adult members from the village for protection of forest, wildlife, and biodiversity. As part of this initiatives, 16,160 nos. of VSS have been formed in the State, wherein 20.06 lakh number of families from 15,303 villages were involved and they have been assigned with 13.93 lakh hectares of forest area for its protection and usufruct benefit have been constated.

c. Other Initiatives

Compensatory Afforestation Fund Management and Planning Authority (CAMPA)

3.10.9 CAMPA has been constituted to promote afforestation and regeneration activities as a way of compensating forest land diverted to non-forest uses. It is an institutional mechanism to receive and manage funds for raising compensatory afforestation. Central Government during the approval of diversion proposal of forest land for non-forestry use, issued important stipulations as per Forest Conservation Act 1980. In consonance with the Forest (Conservation) Act 1980, and the Rules and guidelines there under, the Compensatory Afforestation fund from User Agency are collected and deposited in CAMPA account. Additional conditions are also imposed in certain cases considering the project status, implementation of the site-specific schemes of Compensatory Afforestation (CA), Penal Compensatory Afforestation (PCA), Catchment Area Treatment Plan (CATP), etc.

3.10.10 Various activities with regard to afforestation, forest protection, and infrastructure development have been undertaken under CAMPA in the year 2023-24. During the year 2023-24, afforestation has been made over 33142.09 ha, (compensatory afforestation 2063.00 ha. and NPV 31079.00 ha.) through CAMPA in the State. Protection measures have been augmented including following activities:

- Deployment of 84 firefighting squads in all wildlife divisions
- Creation and maintenance of 15977 Km fire line in forest and wildlife areas
- Construction of 1 fire watch towers
- Deployment of 2270 nos. of local rural unemployed youth to assist frontline staff in protection duty.
- 227 nos. of hired vehicles deployed for protection of forest.

3.10.11 These activities have resulted in effective fire control and protection of forest and wildlife. Several infrastructure development activities like construction and maintenance of road, and provisioning of office

and residential facility for the frontline forest staff have facilitated the forest protection and management of forest and wildlife. The frontline forest staff in remote forest area could get secured residential facility thus improved their working spirit. Besides, various other activities like wildlife protection, raising 18 months old seedlings, strentheing of VSS etc are being undertaken under CAMPA. Further, State Forest Academy is being constructed in Bhubaneswar.

Ama Jangal Yojana (AJY)- An Innovative scheme for Sustainable Forest Management and livelihood generation

3.10.12 AJY is a flagship scheme of government of Odisha being implemented through Odisha Forestry Sector Development Society (OFSDS) with the objective to conserve and restore degrade forest through participatory and sustainable forest management practices and promote alternate livelihoods for the forest fringe communities in the State. The scheme was initially launched for six years from 2016-17 to 2021-22 which has now been extended till 2024-25.

3.10.13 All the activities are carried out with the active participation of Vana Surakshya Samities which are grass root level organisations of local people formed under joint forest management. In total, 4601 VSSs have been covered under the scheme as of January 2023. Major activities involve community mobilization, capacity building of communities, formation of micro plans that are approved by gram sabhas and livelihood promotion through inter-sectoral convergence with line departments.

3.10.14 During the Project period (as in January 2023), Assisted Natural Regeneration (ANR) - Without Gap Plantation has been carried out in 2.09 lakh ha of forest area and ANR-With Gap Plantation has been carried out in 20,000 ha of forest area under the project in 18 Forest Divisions. Apart from these, block plantations have also been raised over 1005 ha of forest land in 12 Forest Divisions. Out of the above, maintenance activities are being carried out in 95,837 Ha of Assigned Forest Area during the present year.

3.10.15 Forest protection activities such as Survey, Demarcation, Pillar Postings and Fire Protection Activities have been carried out in the assigned areas of all 4601 VSSs. Soil & Moisture Conservation activities such as construction of Check Dams, Loose Boulder Check Dams (LBCD) and staggered trenches have been carried out in the assigned areas under the project VSSs. Most importantly, the fire incidents in the assigned areas under AJY could be handled by the proactive response of the VSS members and the project team.

iii. Welfare and Development of Kendu Leaf Collectors

3.10.16 Kendu leaf is an important forest produce in Odisha. Kendu leaf collection and trade is an important source of livelihood for many tribal people. Kendu Leaf trade generates more than 100 lakh man days of employment annually during lean summer, when there is no agricultural work or any other substantial wage-earning opportunity. Odisha is the third highest producer of Kendu leaves in the country after Madhya Pradesh and Chhattisgarh. It is found in 22 districts of the State. The annual production of Kendu leaves is around 3.0 lakh quintals which is about 20 per cent of the country's annual production.

3.10.17 Kendu Leaf Development Board (KLDB) and Kendu Leaf Coordination Committee (KLCC) approve annual budget and monitors progress of various operational works. Odisha Forest Development Corporation (OFDC) is in charge of processing and marketing of kendu leaves that are collected from pluckers. In total, there are around 11.0 lakh beneficiaries involved in Kendu leaf trade, out of which 8.5 lakh are pluckers who are major stakeholders. 80 per cent of total beneficiaries of kendu leaf trade are women.

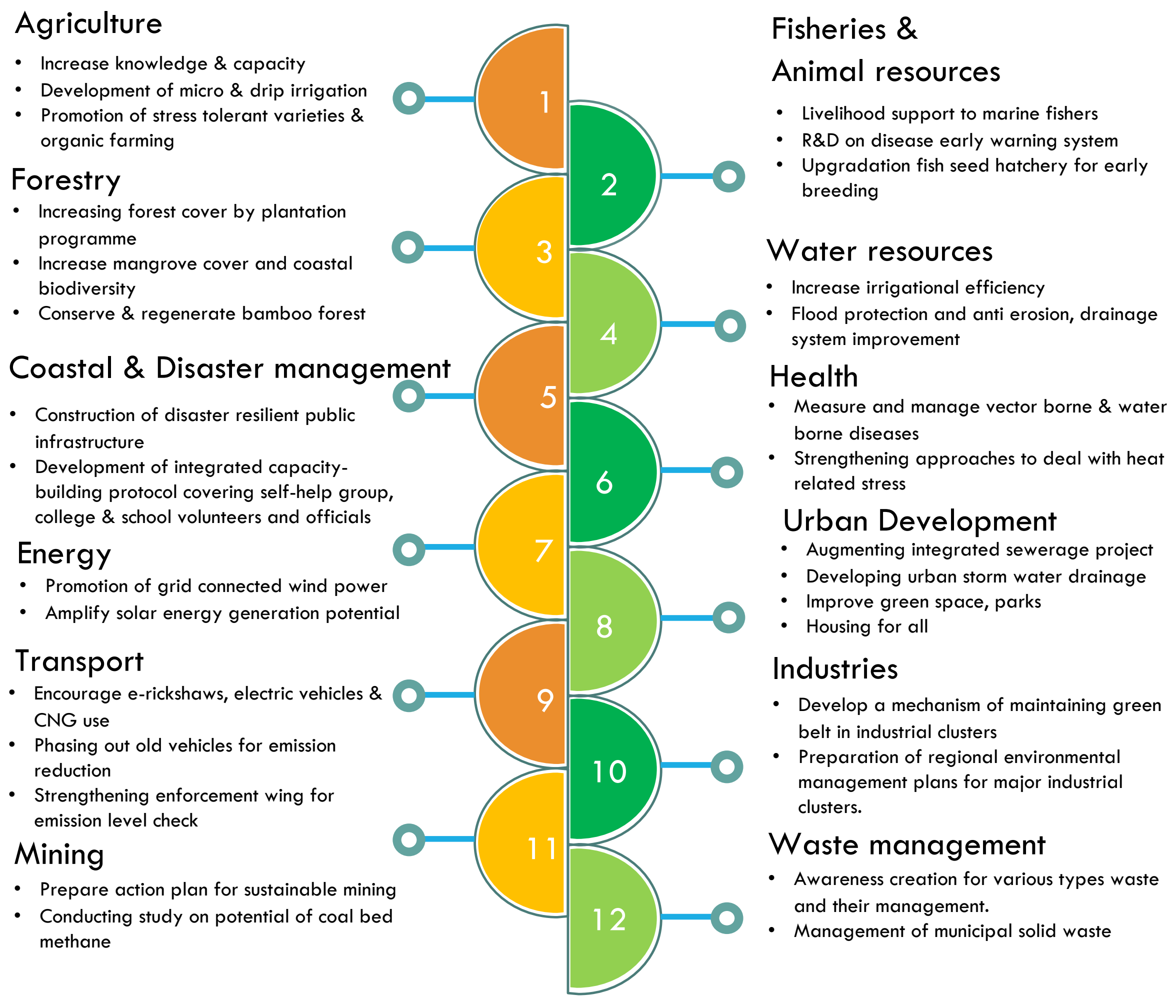
Welfare Measures

3.10.18 Besides the wages and dues, the entire trade surplus obtained from disposal of Kendu leaves is ploughed back again to the beneficiaries in form of various welfare measures like Bonus to Pluckers, Incentives to Binders and Seasonal staff, financial assistances, various other welfare allowances- Water bottle, Chappal, Cap, Kerri procurement Cloth to Pluckers, Blanket & Mosquito net to Binders. In fact, INR 250.75 crore were distributed to more than 8.0 lakh beneficiaries during 2023 for the crop year 2022 which is all time highest welfare assistances given for a single crop year. Besides, there is compensation benefit of 2 lakh in case of death and permanent disability of beneficiaries. During 2023-24, a sum of INR 4.94 crore has been paid to 261 number of beneficiaries and further INR 3.9 crore will be released shortly towards settlement of death claim of 206 number of cases.

3.11 Climate change and environment

3.11.1 Given its location and geophysical conditions, Odisha is prone to natural calamities and climate change induced incidences. Several parts of the State are vulnerable to cyclonic storms, flood, drought, heat waves and salinity. Climate change has the potential to derail growth and development in the State. Agriculture sector and people at the bottom of the pyramid face disproportionate risk of getting impacted because of climate change. Considering climatic risks and its intended consequences, Odisha has brought a comprehensive climate change action plan in 2010. The revised climate change action plan for the period 2021 to 2030 outlines strategies and actionable targets across 12 key priority areas. The action plan envisaged to spend 2.45 lakh crore on both mitigation and adaptation measures. The Odisha climate change action plan has been aligned with NDC, various national climate related missions and SDG 2030. The implementation of the activities envisaged in the policy is being reviewed by monitoring and advisory committee. Key priorities across sectors are given in the Figure 3.25.

Figure 3.25 | Climate Change Action Plan 2021-30 and sectoral priorities



Source: FE&CC Department, GoO

3.11.2 Odisha has taken several steps to reduce greenhouse gas emissions, increase forest coverage and promote renewable energy sources. Forest coverage in the State has increased by 537 square km in 2021 over 2019 assessment which was third highest increase in the country. Currently, new renewable sources like Solar, Wind, Bio-Mass constitute 18 per cent of total power contracted capacity. There is further need to accelerate the share of Solar and Wind in total energy mix and reduce reliance on fossil fuel. The State has set a target to setup 10000 MW RE capacity by 2030. Government has been preparing climate budget for monitoring and tracking of climate-related expenditures in the State. The State has made consistently higher allocations to climate change interventions indicating State's priority to the issue. Odisha has also brought EV policy 2021 (Amended in 2023) for promoting manufacturing and sale of EVs. There is a need to increase charging infrastructure in the state to increase EV adoption.

3.12 Conservation of biodiversity

3.12.1 Odisha has rich natural diversity encompassing forests, hilly terrain, and extensive coastlines. The state is home to a many floras and faunas, boasting 5174 plant species and 3728 animal species. To safeguard and conserve this wealth of biodiversity, key institutions such as the Odisha Biodiversity Board, the Centre for Environmental Studies, and the Regional Plant Resource Centre (RPRC) play pivotal roles.

3.12.2 Odisha Biodiversity Board established in 2009 under the Biological Diversity Act 2002, is committed to safeguarding and conserving the state's biological diversity while promoting its sustainable utilization. The board is diligently works towards the protection and conservation of Odisha's biodiversity heritage through the following activities:

- The Odisha Biodiversity Board facilitated the preparation of 7256 base level dynamic Peoples Biodiversity Registers (PBR), which document locally available bio-resources.
- Odisha has 25 biodiversity-rich sites, three of which have been declared as national heritage sites located in Gajapati, Bolangir, and Baragarh districts.
- The board has identified 163 plant species and 64 animal species in Odisha for assessing their threat status.
- Research initiatives include studies on the Freshwater Turtle of Odisha, Faunal Diversity in Kuanria Wetland of Nayagarh, and the inventory and assessment of threatened and endemic plants.
- The board also conducts documentation of commercially important biological resources through exploration of Access and Benefit Sharing Mechanisms. Nine case studies have been prepared on different commercially significant bioresources, including Medicinal plants, Kewra Oil, Nagarmutha grass, Gastropods, and Bivalves, along with their value chain analysis for future access and benefit-sharing agreements.
- Moreover, the board organizes capacity-building training programs for members of Biodiversity Management Committees (BMCs) and Frontline Staff from various Forest Divisions.

3.12.3 In conservation of biodiversity, Regional Plant Resource Centre (RPRC) is playing an important role by focusing on the production and preservation of plant genetic resources using modern tissue culture techniques Presently, the center has prioritized several plant groups, especially mangroves, orchids, and the domestication and assessment of wild edible fruits and medicinal plants for active biomolecules, nutraceuticals, and antioxidants. Additionally, RPRC is involved in developing bioinoculants for forest species, which are useful secondary metabolites from fungi, and engaging in micropropagation of forest species, plantation crops, and endangered plants.

3.12.4 In alignment with biodiversity conservation, the Centre for Environmental Studies (CES) serves as the State program center for environmental information, awareness, capacity building, and livelihood programs (EIACP), CES ensures the widespread distribution of environmental information through mediums such as newsletters, books, booklets, posters, leaflets, video clips, and mobile apps. As the State Nodal Agency, CES spearheads the implementation of the Eco Club and Energy Club Programme in Odisha, encouraging environmental stewardship among communities. Currently, there are 14,250 functioning Eco-clubs in the state, primarily operating within schools, contributing significantly to environmental conservation efforts. Furthermore, CES has produced two short films, "Say No To Single Use Plastic" and "Sabuja Paribesha, Sustha Paribesha," to enhance public awareness and engagement on pertinent environmental issues. These initiatives complement CES's broader mandate of environmental education and advocacy, contributing to a more sustainable future for Odisha.

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i. Wildlife Protection in Odisha

3.12.5 To safeguard, conserve, and manage the state’s diverse and iconic wildlife, the State Wildlife Organization of Odisha was established on August 14, 1974, following the enactment of the Wildlife (Protection) Act, 1972, and the introduction of the Wildlife (Protection) (Odisha) Rules, 1974. The Figure 3.26 highlights the significant initiatives undertaken by wildlife organizations in the state.

3.12.6 Odisha is home to a rich variety of species, including 29 species of amphibians, 131 species of reptiles (which includes 3 species of crocodiles) , 537 species of birds, and 114 species of mammals. Among these, 54 species are classified as endangered, including 17 species of reptiles, 15 species of birds, and 22 species of mammals, according to the IUCN Red Data Book.

Figure 3.26 Activity of wildlife organization

Conservation

- 19 Wildlife Sanctuaries, 1 National Park, 1 Proposed National Park, 3 Elephant Reserves, 2 Tiger Reserves, 1 Proposed Tiger Reserve, and 14 identified Elephant Corridors for In-situ conservation.
- 11 zoos (out of which 07 mini, 03 small, and one large zoo) have been established for Ex-situ conservation.
- Out of 15 proposed Eco-sensitive zones around these protected areas, 10 have been finally notified and a draft notification on 4 sanctuaries has been issued by GoI.
- 539 nos. of EDC have been formed covering 43455.32 Ha. of protected areas

Protection

- 507 Anti-depredation/Anti-poaching squads and 126 Elephant squads have been engaged to
- prevent depredation by wild animals.
- “Jana Surakhya Gaja Rakhya” is implemented through individual as well as community participation in areas with significant incidences of human-elephant conflict to protect crops and other infrastructure from elephant depredation using solar-powered fencing.
- Compassionate payments due to wildlife depredation have been made promptly to the victims through the “ANUKAMPA” portal.
- 28 Watch towers & 23 anti-poaching camps have been constructed to monitor the movement of wild animals.

Habitat Development

- 25 new water bodies were created during the year 2022-23 to address the water scarcity in wildlife habitats.
- 258 ha. of mangrove plantations created during 2022-23 to protect and preserve the coastal areas from natural calamities.
- A dedicated laboratory at the Centre for Wildlife in the College of Veterinary Science and Animal Husbandry, OUAT, Bhubaneswar has been upgraded and equipped with modern diagnostic instruments to provide wildlife-related examinations and treatments.
- 120 nos. of eligible families have voluntarily been relocated from Satkosia Tiger Reserve following NTCA and State relocation guidelines, making available over 440 ha. for wildlife habitat improvement.

Source: FE&CC Department, GoO

ii. Conservation of wetlands

3.12.6 Wetlands are unique ecosystems that are permanently or seasonally saturated with water. They naturally control floods, recharge groundwater, sequester carbon, and serve as habitats for diverse flora and fauna. Chilika lagoon is the second-largest brackish water lagoon in Asia, was designated as the first Ramsar Site[4] in India in 1981. Currently, Odisha has six Ramsar sites with the earlier declared two Ramsar Sites; Chilika and Bhitarkanika Sanctuary, as well as recently tagged Hirakud Reservoir, Satkosia Gorge, Ansupa Lake, and Tampara Lake. The Odisha Wetland Development Authority was formed to conserve and protect wetlands by formulating policies and conducting field monitoring.

[4] Ramsar Site- The inter-governmental global treaty held at Ramsar in Iran to preserve ecological characteristics of selected wetlands which are designated as Ramsar Site.

Chilika Development Authority

3.12.7 The Chilika Development Authority (CDA) was established to preserve the ecological importance of Chilika, one of the most significant biodiversity hotspots. Chilika provides shelter to several endangered species and is known for housing India's largest migratory avifauna. In 2023, the bird population in Chilika was estimated to be nearly 1,131,929.

3.12.8 Chilika, with its rich fishery resources, produced 19,428.30 MT of fish in 2021-22, sustaining the livelihoods of more than 0.2 million fishermen living around Chilika Lake. The CDA has been carrying out the following initiatives to conserve and preserve the biodiversity of such heritage sites:

- Restoration and improvement of the Nalabana Ecosystem with assistance from the Chilika Wildlife Division for the protection of migratory birds.
- Surveys of the Irrawaddy dolphin to understand their status as endangered species.
- Estimation of fishing
- Monitoring of physio-chemical properties of the lake from 33 monitoring stations to understand the water health of the lake.
- CDA has been carrying out the census of Chilika Fishing Cat
- Excavation of the Navigation Channel to facilitate the plying of the fisheries boats have been carried out by CDA.
- CDA has been publishing the Chilika Health Report Card in every two years to assess the health of the lake since 2012.

3.13 Conclusion

3.13.1 Agriculture and allied sectors account for one-fifth of total gross state value added and employ almost half of total workforce in the State. In 2023-24 (AE), agriculture and allied sectors is estimated to grow at 3.5 per cent in Odisha. Crop sector is estimated to grow at 3.2 per cent while livestock and fisheries growth rates are estimated at 2.5 per cent and 3.6 per cent respectively. Forestry and logging sector is estimated to grow at 5.5 per cent in 2023-24 (AE).

3.13.2 The composition of agriculture and allied sectors have undergone some changes over time. The share of crops in agriculture sector GSVA has declined from 64.9 per cent in 2011-12 to 59.0 per cent in 2023-24 (AE). The share of livestock and fisheries in agriculture GSVA have increased from 13.7 per cent and 6.8 per cent in 2011-12 to 16.7 per cent and 10.6 per cent respectively in 2023-24 (Figure 3.3). Though the share of crop in agricultural GSVA has been declining, it is still high. There is need to accelerate growth of livestock and fisheries sector to increase agricultural growth in State and enhance farmers income.

3.13.3 Rice continues to be the dominant crop in Odisha accounting for 46.4 per cent of GCA in 2022-23. Pulses is the next major crop in the state accounting for 22.4 per cent of GCA in 2022-23. Area under millet has seen maximum growth of 22.6 per cent in 2022-23 mainly due to implementation of millet mission. But millet constitutes just 3 per cent of gross cropped area. Fruits and vegetables together account for 12.1 per cent of total GCA in the State. Area under fruits and vegetables has marginally increased in 2022-23 over the previous year. Other high value crops like oilseeds and fibre (mainly cotton) constitute merely 6 per cent and 3 per cent of GCA in 2022-23. There is need to accelerate crop diversification in the State towards fruits & vegetables, pulses, oilseeds and cotton among other suitable crops and also reduce rice fallow areas during rabi cropping season.

3.13.4 Foodgrain production in the State increased by 24.2 per cent in 2022-23 to reach 141.4 lakh MT from 113.8 lakh MT in 2021-22. Rice, which constitutes 84 per cent of total foodgrain production, registered 28.4 percent growth in 2022-23. In 2022-23, millet production has seen maximum growth at 47.3 per cent, though on a low base, mainly due to promotion of millets. Pulses production has increased by 3.8 per cent in 2022-23 while oilseeds production has increased just 1.2 per cent. There is need to increase production of fruits, vegetables and other high value crops like cotton, sugarcane, oilseeds, and pulses in the State.

3.13.5 Technology plays an important role in enhancing agricultural productivity and growth. Yield of various crops in Odisha is lower than the national average. There is need to increase yield through promotion of good practices, irrigation coverage and use of quality seeds.

3.13.6 Milk Production in Odisha has increased by 3.1 per cent in 2022-23 to reach 24.8 lakh metric tonnes (MT) against 3.8 per cent growth rate at all India level. Per capita availability of milk in Odisha (148 grams/day) is lower than all India average of 459 grams/day in 2022-23. Cow milk has dominant share in total milk production in Odisha while at all India level both cow and buffalo have almost equal share in total milk production. There is need to increase milk production through increasing milk yield and share of high yielding cows. Egg production in the State has increased by 10.7 per cent in 2022-23 to reach 341 crore eggs against 308 crore eggs in 2021-22. Per capita availability of eggs has also increased from 45 eggs in 2014-15 to 74 eggs per annum in 2022-23, but per capita availability of eggs in Odisha is still lower than all India level of 101 eggs.

3.13.7 There is need to enhance agriculture growth on sustained basis and farmers' income through promotion of crop diversification, agricultural marketing reforms, farm mechanization, agripreneurs, value chain development and development of livestock and fisheries sector. In the light of climate change risks, promotion of climate smart practices needs to be accelerated to reduce carbon footprint of agriculture and enhance resilience.

CHAPTER

4

INDUSTRY SECTOR – ANCHORING GROWTH

ABSTRACT

Industry sector holds a prominent position in Odisha economy, accounting for 43.3 per cent of Gross State Value Added (GSVA) in 2023-24 (AE). The sector employs around 26 per cent of total workforce in the State as per Periodic Labor Force Survey (PLFS) 2022-23. Within industry, manufacturing contributes the highest share of 54 per cent to the industry GSVA, followed by mining and quarrying at 22 per cent, construction at 16 per cent and electricity and other utilities at 8 per cent in 2023-24 (AE). Odisha is ranked 9th among 17 major states in terms of share in India's industrial GVA (4.1 per cent) in 2021-22. Industry sector in Odisha is estimated to grow at 8.7 per cent in 2023-24 (AE) over 2022-23, as compared to an All-India average of 9.5 per cent (Provisional Estimates).

Odisha is a mineral rich state, contributing around 41.9 per cent of total major mineral production at the national level in 2022-23. Coal and Iron Ore collectively constituted over 92 per cent in volume terms and 88 per cent in value terms of the total mineral production of Odisha in 2022-23. The sector is further poised to grow in years to come.

There is a scope of industrial diversification in the State. While the list of approved sectors in Odisha for investment has increased from 13 in 2015-16 to 32 in 2023-24, the contribution of basic metals to organized manufacturing GVA of the State is more than 78 per cent in 2021-22. Investments have started to flow in new-age industries viz. Green Hydrogen & Ammonia, Technical Textiles, Food Processing, Apparels, IT enabled services etc.

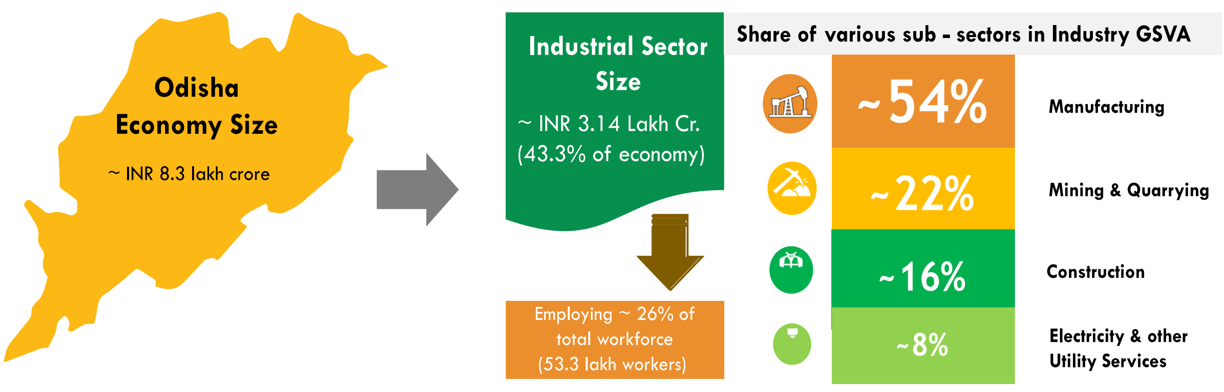
Odisha is ranked 10th among all states in merchandise exports with an All-India share of 2.5 per cent in 2022-23. Currently, exports are concentrated in metallurgical products (69.1 per cent), minerals (15.2 per cent). There is a need to diversity towards downstream and ancillary industries, promote agriculture and fisheries exports, improve multi-modal connectivity, enhance cargo handling capacity at Bhubaneswar airport, and facilitate better market access for MSMEs, among others.

4.1 Industry Sector Performance

i. Introduction

4.1.1 Industry sector holds a prominent position in Odisha economy, accounting for 43.3 per cent of Gross State Value Added (GSVA) in 2023-24 (AE). Industry sector has been the major driver of economic growth in Odisha. Within industry, manufacturing contributes the highest share of 54 per cent to the industry GSVA, followed by mining and quarrying at 22 per cent, construction at 16 per cent and electricity and other utilities at 8 per cent in 2023-24 (AE) (Figure 4.1). As per the Periodic Labour Force Survey (PLFS), industry sector employed around 26 per cent of total workforce in the State as of 2022-23.

Figure 4.1 | Odisha Industry Scenario: 2023-24 (AE)



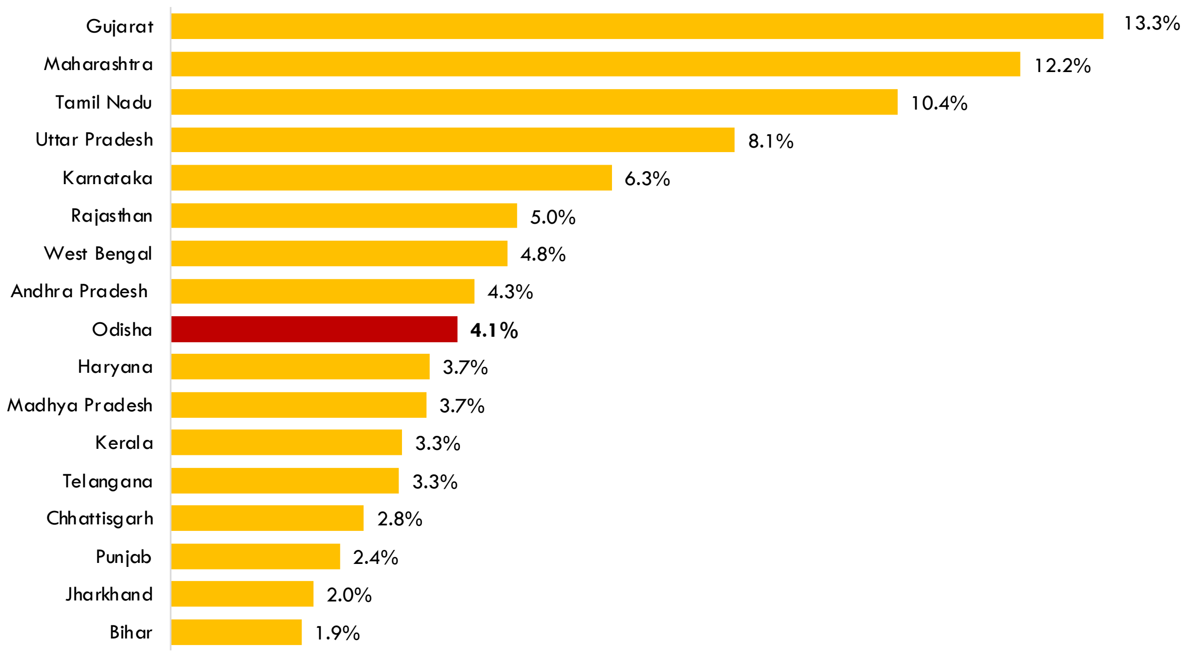
Source: Directorate of Economics & Statistics, Government of Odisha and MoSPI, Government of India

4.1.2 In terms of size of industry sector, in 2021-22, there are 3,204 registered manufacturing factories and 24.3 lakh unincorporated (non-agricultural) enterprises (as per Annual Survey of Unincorporated Sector Enterprises (ASUSE), 2021-22). As per latest estimates for 2022-23, number of unincorporated (non-agricultural) enterprises has gone up to 29.5 lakhs.

ii. Overall Industrial Performance

4.1.3 Odisha is ranked 9th among 17 major States in terms of share in India's industrial GSVA in 2021-22 (Figure 4.2). The top 5 States in terms of share in India's industrial GSVA in 2021-22 are Gujarat (13.3 per cent), Maharashtra (12.2 per cent), Tamil Nadu (10.4 per cent), Uttar Pradesh (8.1 per cent) and Karnataka (6.3 per cent).

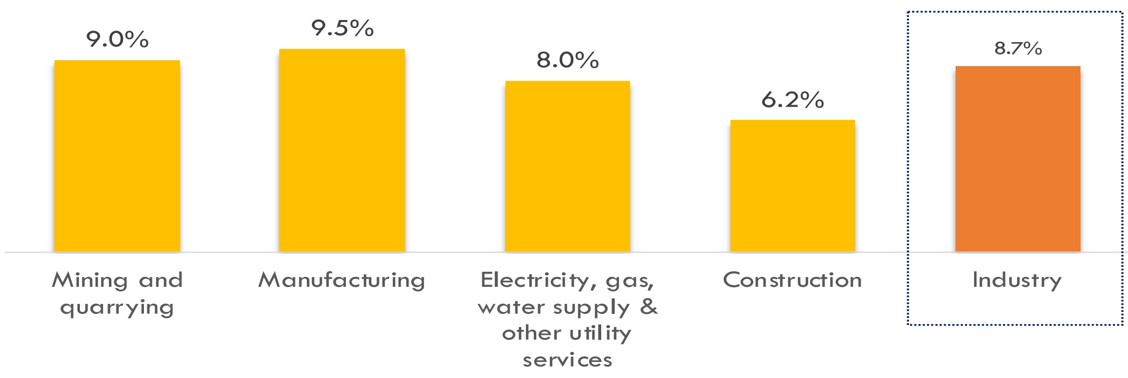
Figure 4.2 State wise share in India's industrial GVA, 2021-22



Source: National Account Division, MoSPI, Government of India

4.1.4 Industry sector in Odisha is estimated to grow at 8.7 per cent in 2023-24 (AE) over 2022-23, as compared to an All-India average of 9.5 per cent as per provisional estimates. Growth in industries in the State is led by manufacturing (9.5 per cent) and mining and quarrying (9.0 per cent) sub-sectors in 2023-24 (AE). This is followed by the other two sub-sectors, viz. electricity, gas, water supply and other utilities services (8.0 per cent) and construction (6.2 per cent) (Figure 4.3).

Figure 4.3 Annual Growth in Industry GSVA at constant prices in Odisha in 2023-24 (AE)



Source: Directorate of Economics & Statistics, Government of Odisha and MoSPI, Government of India

4.1.5 Owing to economic slowdown in 2019-20, the industry GSVA in Odisha contracted by 6.9 per cent. However, the sector rebounded thereafter. In real terms, manufacturing and mining and quarrying, the two major drivers of industrial growth in Odisha grew at 5.4 per cent and 5.2 per cent respectively over the last 5 years (2019-20 and 2023-24 (AE)). Construction and electricity and other utility services registered 5.2 per cent and 10.9 per cent growth rate between 2019-20 and 2023-24 (AE) respectively (Table 4.1).

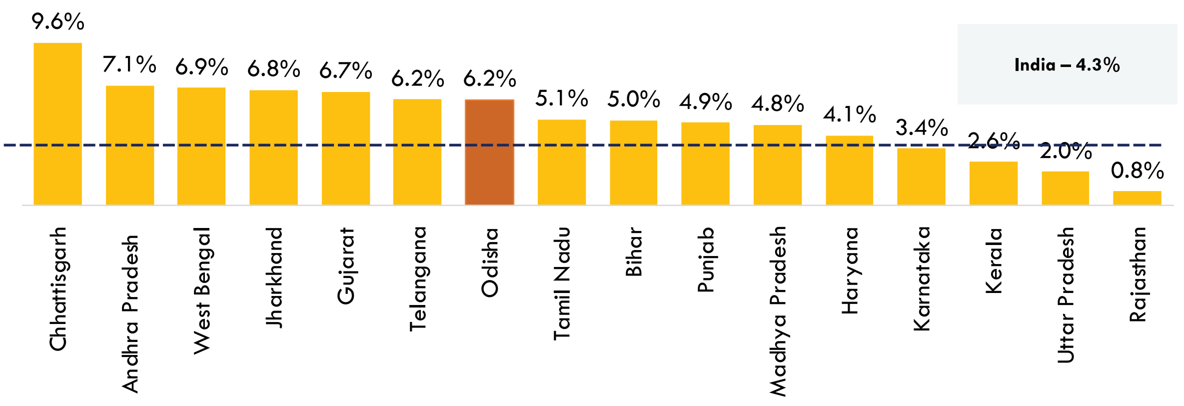
Table 4.1 | Growth of industry sub-sectors GVA at constant prices - Odisha (in %)

Sub-sectors	2019-20	2020-21	2021-22	2022-23	2023-24	Average – 2019-20 to 2023-24
Mining and quarrying	-3.9	-9.2	23.2	7.1	9.0	5.2
Manufacturing	-11.5	18.1	4.3	6.6	9.5	5.4
Electricity, gas, water supply & other utility services	3.5	5.0	31.5	6.6	8.0	10.9
Construction	0.2	-9.0	18.6	9.9	6.2	5.2

Source: Directorate of Economics & Statistics, Government of Odisha

4.1.6 Odisha is ranked 7th in terms of State-wise growth in industrial GSVA between 2017-18 and 2021-22 with an average of 6.2 per cent (Figure 4.4). Chhattisgarh tops the list with an industrial growth of 9.6 per cent, followed by Andhra Pradesh (7.1 per cent) and West Bengal (6.9 per cent).

Figure 4.4 | State wise growth in industrial GSVA - 2017-18 to 2021-22



Source: Directorate of Economics & Statistics, Government of Odisha and MoSPI, Government of India

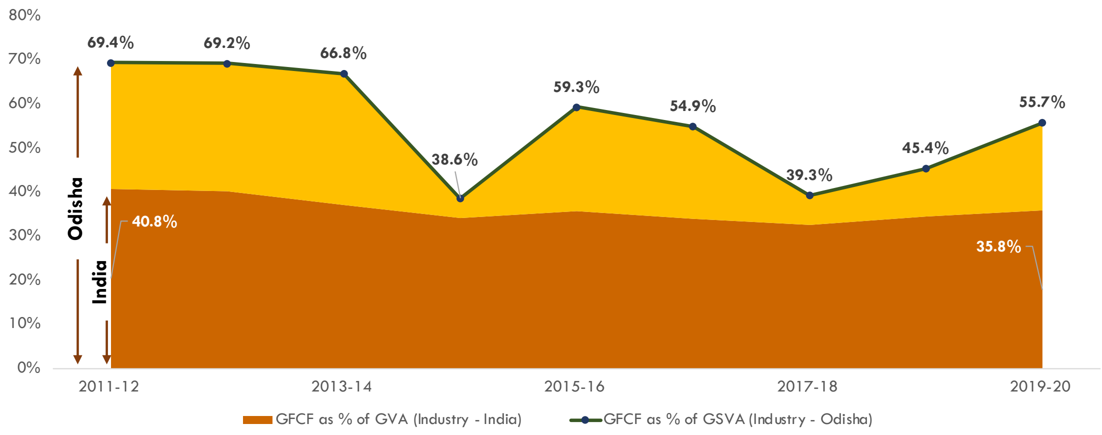
iii. Workforce Participation

4.1.7 Industrial sector in Odisha employed 53.3 lakh workers in 2022-23 as per PLFS, which was around 26 per cent of total workforce in the State. Between 2017-18 and 2022-23, the workforce in industry sector in Odisha increased from 38.8 lakh to 53.3 lakh, at a CAGR of 6.6 per cent. Construction sector constitutes 66 per cent of industrial workforce in the State, followed by 31 per cent in Manufacturing, 1.9 per cent in electricity & other utility services and 1.4 per cent in mining & quarrying.

iv. Investment

4.1.8 Gross Fixed Capital Formation (GFCF) in industrial sector, which is a proxy to investment, grew at a CAGR of 24 per cent between 2011-12 and 2019-20. However, it is interesting to note that GFCF as percentage of GSVA in industry sector of Odisha has declined from 69.4 per cent in 2011-12 to 55.7 per cent in 2019-20. This indicates a further need of accelerating investment in the State.

Figure 4.5 | GFCF in Industry Sector as % of G(S)VA for Industry Sector - Odisha and India



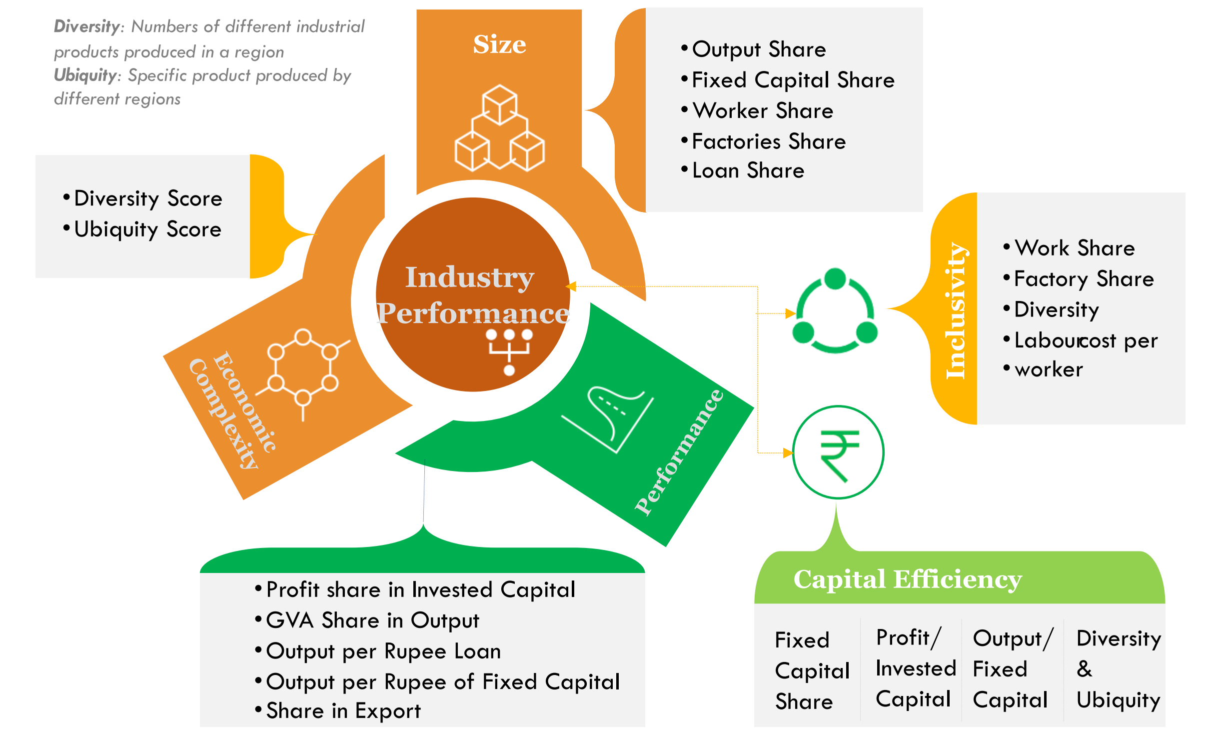
Source: Directorate of Economics & Statistics, Government of Odisha and MoSPI, Government of India

v. District level Industrial Performance

4.1.9 This section provides industrial performance in districts based on a composite index called District Industrial Performance Index (DIPI). The index is developed based on Annual Survey of Industries frame data. For 2018-19, the index has been constructed based on three performance dimensions- (i) Industry Size (ii) Performance of the industry and (iii) Economic Complexity. Indicators of Industry size includes share in total output, share in total fixed capital, share in total workers, share in total number of factories, and share in total outstanding loan. Indicators of performance includes Profit per 1 INR of Invested Capital, GVA per 1 INR of Output, Output per 1 INR of outstanding loan, Output per 1 INR of Fixed Capital and share of total exports of the State- 2021-22. Economic Complexity is measured by two indicators diversity score (number of different categories of products produced by the district at NIC 2008 3-digit level) and ubiquity score (number of districts producing the product produced by a particular district). While ASI frame data for 2018-19 is majorly used for estimation of DIPI, the share of total exports of the State (under Performance dimension) is taken from Ministry of Commerce & Industry, Government of India, for the year 2021-22. The framework, with all indicators used for each of the three pillars is presented in Figure 4.6. The index intends to measure extent of industrial activity at the district level.

4.1.10 In terms of DIPI score, top three districts are Jharsuguda (overall score = 0.47), followed by Sundargarh, and Jagatsinghpur.

Figure 4.6 | Framework - Industrial Performance Index



Source: Prepared by Directorate of Economics & Statistics, Government of Odisha

4.1.11 As evident, Jharsuguda topped the list majorly relying on the size of mettalurgical industries located in the district. This is followed by Sundargarh district , which is well known for its steel, cement, fertilizers and machine building factories. Jagatsinghpur ranked third in the list with a relatively diversified industry portfolio of the district, that include Plastics, Fertilizers, Steel Pellets, Oil refineries, edible oil plants, breweries and so on (Table 4.2).

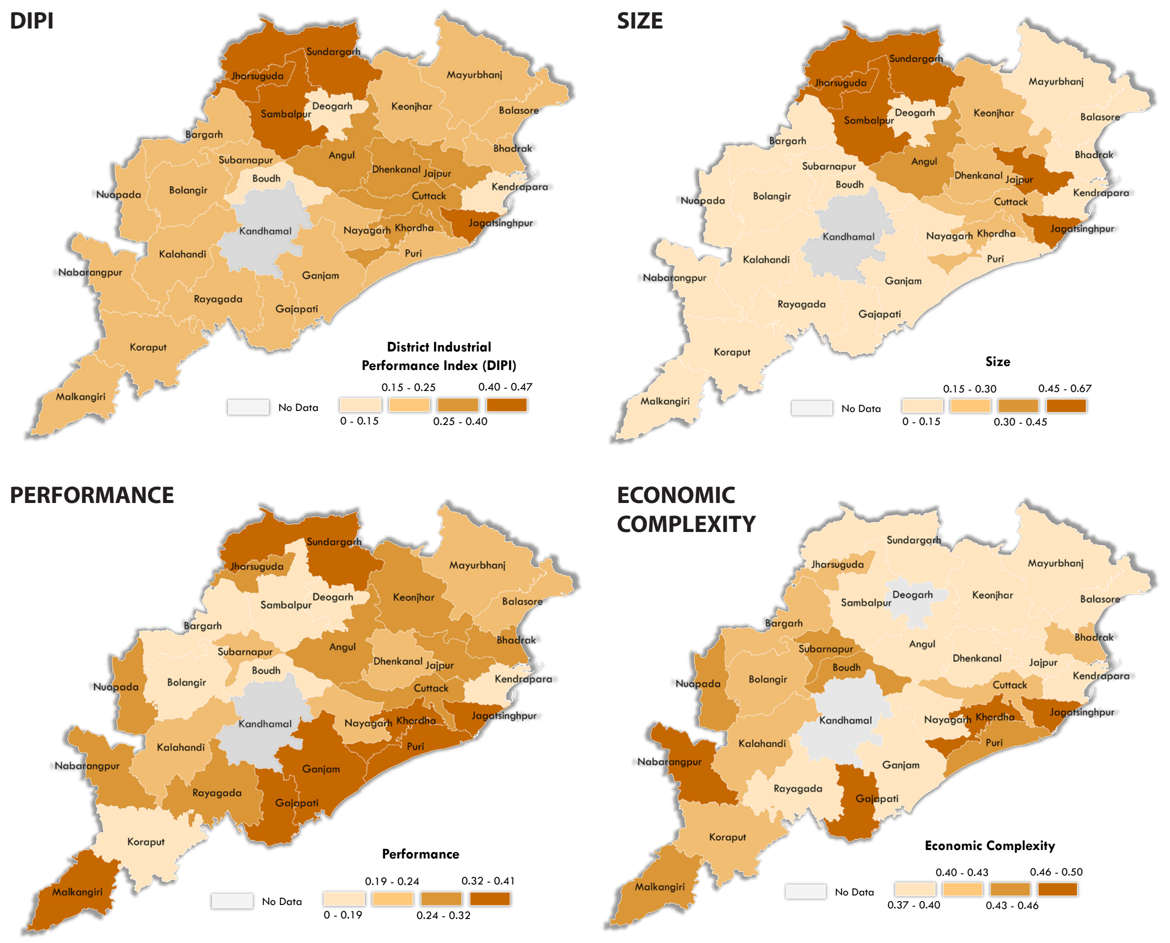
Table 4.2 | Top 10 Districts in terms of Industrial Performance, 2018-19

District	Size	Economic Complexity	Performance	Industry Index
Jharsuguda	0.65	0.42	0.32	0.47
Sundargarh	0.59	0.39	0.34	0.45
Jagatsinghpur	0.47	0.50	0.39	0.44
Sambalpur	0.67	0.39	0.18	0.42
Khurda	0.30	0.50	0.40	0.37
Jajpur	0.46	0.40	0.24	0.36

District	Size	Economic Complexity	Performance	Industry Index
Angul	0.34	0.40	0.32	0.34
Dhenkanal	0.26	0.38	0.21	0.26
Cuttack	0.21	0.43	0.24	0.26
Keonjhar	0.16	0.39	0.30	0.25

Source: Compiled from ASI Frame Data 2018-19, Directorate of Economics & Statistics, Government of Odisha

Figure 4.7 District Wise Industrial Performance Level

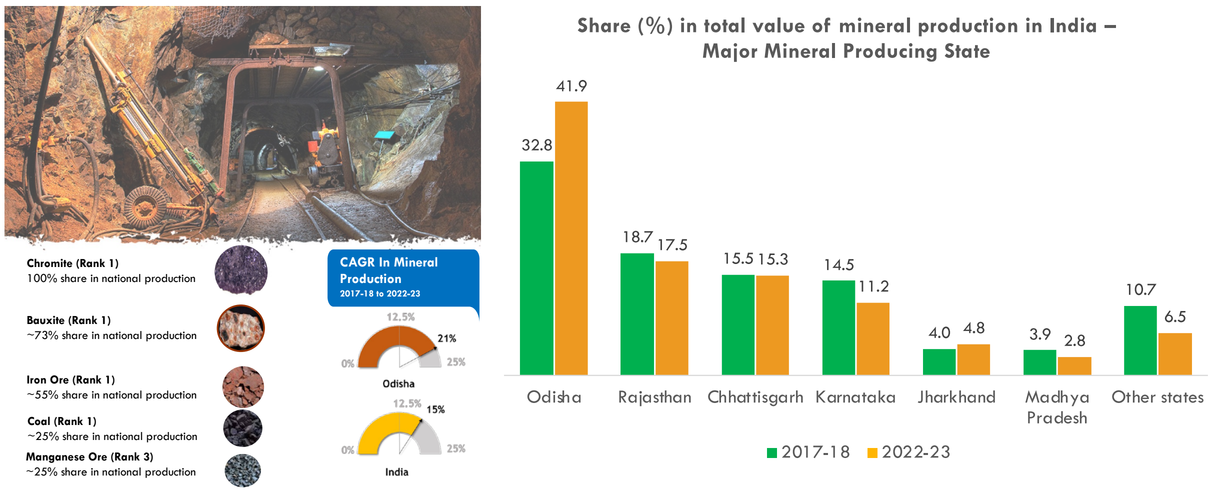


Source: Prepared by Directorate of Economics & Statistics, Government of Odisha

4.2 Mining & Quarrying

4.2.1 Odisha is endowed with rich mineral resources with a variety of metallic and non-metallic minerals including Chromite, Bauxite, Graphite, Iron-Ore, and Manganese Ore. Mining and quarrying is an important activity in the State, accounting for 9.4 per cent of GSVA and 22 per cent of Industry GVA as of 2023-24. As per Indian Bureau of Mines, Odisha contributed 41.9 per cent of total mineral production (excluding fuel oil and atomic minerals) in India during 2022-23. Between 2017-18 and 2022-23, mineral production in Odisha grew at a CAGR of 21 per cent (Figure 4.8).

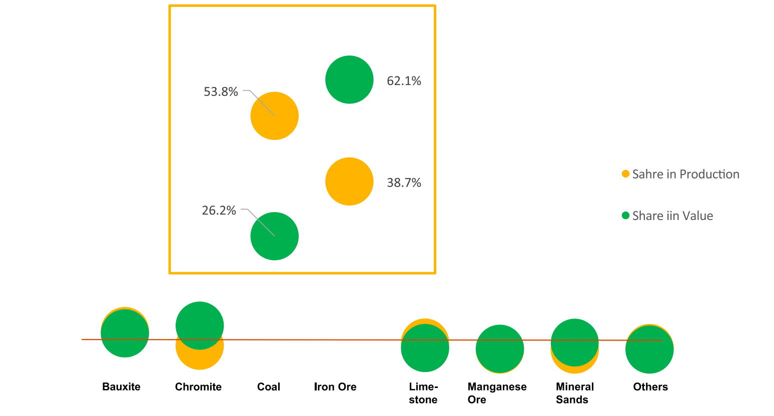
Figure 4.8 | Growth and share of Mineral production - Odisha and other mineral States



Source: Indian Bureau of Mines, Government of India and Department of Steel & Mines, Government of Odisha

4.2.2 Coal and Iron Ore collectively constituted over 92 per cent in terms of volume and 88 per cent in value terms of the total mineral production in Odisha in 2022-23. While iron ore alone accounted for 38.7 per cent of total mineral production in the State, it accounted for 62.1 per cent of total value of minerals in 2022-23 owing to high value nature of the commodity. On the other hand, coal has a share of 53.8 per cent in total quantity of mineral production and 26.2 per cent in value (Figure 4.9).

Figure 4.9 | Share in production and value of major minerals in Odisha (2022-23)



Source: Department of Steel & Mines, Government of Odisha

i. Major Minerals

4.2.3 Odisha has one-third of the total iron ore reserves in the country. Iron ore production in Odisha increased from 53.3 million tonnes in 2014-15 to 155.3 million tonnes in 2022-23 growing at a CAGR of 14.3 per cent. Similarly, Bauxite production increased from 9.2 million tonnes to 17.5 million tonnes and chromite production has increased from 2.2 million tonnes in 2014-15 to 3.7 million tonnes in 2022-23, with a CAGR of 8.4 per cent and 6.9 per cent respectively.

4.2.4 Production of coal and manganese ore, both of which had an approximate share of 25 per cent in the national production, grew at a CAGR of 7.3 per cent and 9.1 per cent respectively between 2014-15 and 2022-23 (Table 4.3).

Table 4.3 | Production of Major Minerals in Odisha (in Million Tonnes) –2014-15 & 2022-23

Minerals	2014-15	2022-23	CAGR (2014-15 to 22-23) (%)
Iron Ore	53.3	155.3	14.3
Manganese Ore	0.3	0.6	9.1
Bauxite	9.2	17.5	8.4
Chromite	2.2	3.7	6.7
Coal	122.8	216.1	7.3

Source: Department of Steel and Mines, Government of Odisha

4.2.5 A district level analysis of mineral production in 2021-22 across Odisha shows that more than 50 per cent of coal production of the State is derived from Angul district. Sundargarh (25.1 per cent), Jharsuguda (18.2 per cent) and Sambalpur (4.6 per cent), which are the major coal producing districts. Keonjhar and Sundargarh were major producers of iron ore and manganese ore. While Keonjhar produces 61 per cent of iron ore and 84 per cent of manganese ore in the State, the production share of iron ore and manganese ore in case of Sundargarh is respectively, 35 per cent and 16 per cent. Bauxite is produced in Koraput (60 per cent) and Rayagada (40 per cent), while chromite is mainly extracted from Jajpur district (99.6 per cent).

ii. Minor Minerals

4.2.6 The total value of minor mineral production (viz. China Clay, Dolomite, Fire Clay, Pyrophilite, Quartzite, Soapstone, Sandstone and Silica Sand) is INR 93.2 crore in 2022-23, of which the contribution of dolomite (INR 82. 6 crore) and quartzite (INR 10.3 crore) are significant in value terms.

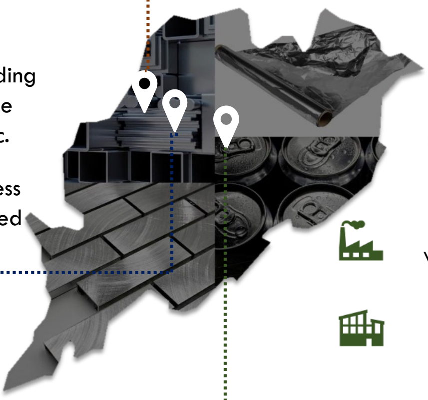
iii. Steel and Aluminium

a. Steel Production

4.2.7 Odisha has 52 operational steel plants with installed capacity of around 35 Million Tonnes Per Annum (MTPA) in 2022-23. This constituted almost one-fourth of the country's total installed capacity. Odisha is the highest producer of steel in the country, producing more than 31 MT in 2022-23. The logistics network in Odisha is a key enabler for steel industry, with three operational ports viz. Paradip, Gopalpur and Dhamra playing important roles in trade of raw materials and finished products. All major steel manufacturers including SAIL, Tata Steel, JSPL, JSW, among others are operating in the State.

Vedanta Ltd., Jharsuguda

- Sprawling over 253 acres, Vedanta Park is near world's largest Aluminum smelters in Jharsugda
- Plethora of utilities available including power supply and future renewable options, perennial water supply etc.
- Export-oriented industries can access hot metal for producing their finished goods in this park



HINDALCO, Hirakud, Sambalpur

- Hirakud FRP is a low-cost world-class rolling mill complex with a capacity of 135 KT per annum
- Major equipment in the plant includes scalpers, soaking pits, hot mill, cold mill, annealers, roll grinders, finishing and packing equipment, along with other auxiliary and ancillary equipment.

NALCO Angul Aluminium Park

- First-of-its-kind park in South Asia with availability of molten Aluminum
- High class technical infrastructure including Common Facility Centers, Testing/Training equipment
- Integrated Solid Waste Management
- Inland Container Depot (ICD) available in proximity of Balasore

Investment Opportunities for various industries

Downstream Industries in Aluminum					Ancillary Industries (Raw Material Inputs)				
Conductors	Extrusions	Castings	Foils	Other incl. Powder	Calcined Petroleum	Refractory Bricks	Cryolite	Caustic Soda	Aluminum Fluoride

b. Aluminium Production

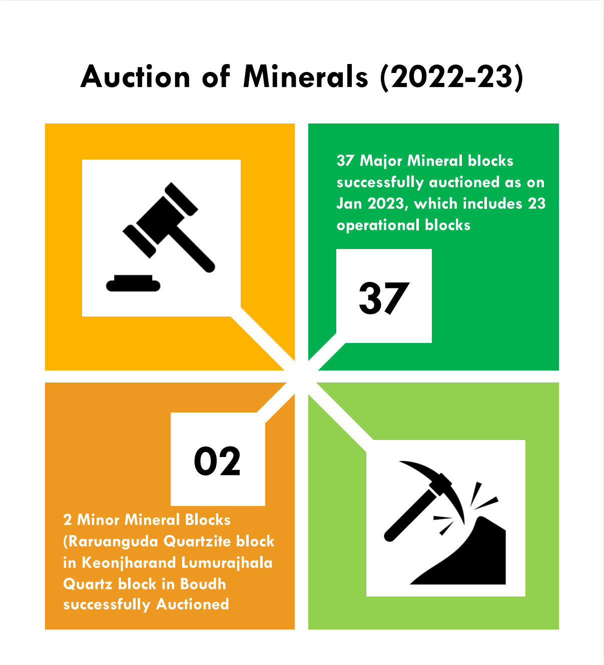
4.2.8 Aluminium gained world-wide acceptability owing to its wide range of usages across sectors and enviroment friendly feature. Aluminium has host of applications in sectors like power, transportaion, construction, defence, packaging, debuilding. The unique properties of aluminium include low-density, low weight, high thermal conductivity, excellent corrosion resistance and environmental friendly. Odisha has almost 75 per cent of India's total Bauxite reserves as of 2022-23, which is a raw material for producing Aluminium. Odisha is the largest producer of Aluminium in the country. The State produced 2.5 MT Aluminium in 2022-23. All major Aluminium producers like National Aluminium Company Limited (NALCO), Hindalco Industries and Vedanta Ltd. are operating in the State. A snapshot of major Aluminium downstream units in Odisha are given in the above exhibit.

c. Implementation of digital initiative in the Mining Sector

4.2.9 Upgradation of i3MS: An IT based mineral administration software known as Integrated Mines and Mineral Management System (i3MS) is expected to bring more transperancy in mineral transactions. This technology intervention will cater to 'Ease of Doing Business' in mining sector and help in monitoring various activities from extraction to consumption of minerals.

4.2.10 Mineral Resource Mapping: Odisha plan to take up Comprehensive Mineral Resource Mapping of the State indicating the quantum of mineral resources, its valuation and development potential.

4.2.11 Upgrading mineral exploration: In collaboration with national and international agencies, Directorate of mines and Odisha Mining Corporation (OMC) aims at undertaking mineral exploration of potential areas in large scale. Capacity building of manpower resources are being undertaken in this regard.



iv. Odisha Mining Corporation (OMC)

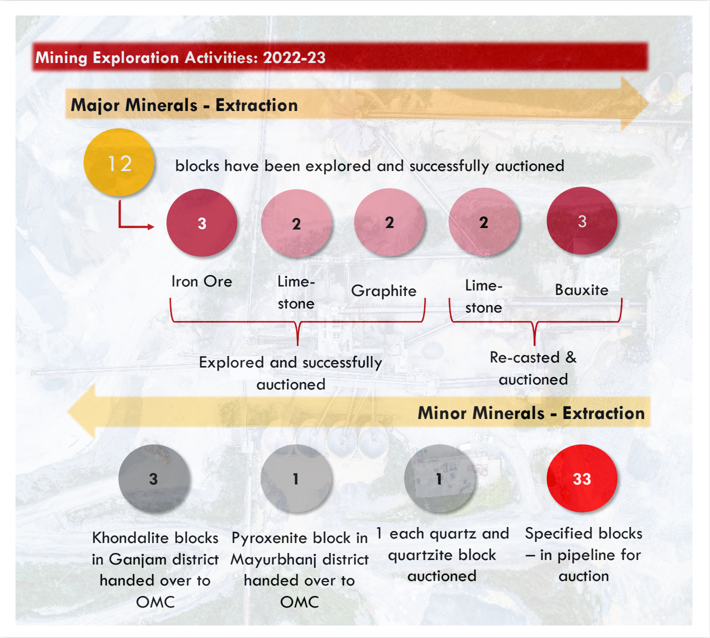
4.2.12 Odisha Mining Corporation (OMC) work with the prime objective of harnessing mineral wealth through exploration and extraction. The major minerals mined by OMC are chrome, iron and bauxite ore which cater to the requirement of mineral-based industries such as steel, aluminium, sponge iron, pig iron, ferro-manganese, and Ferro-Chrome etc. OMC achieved its annual target of 3.4 crore MT production of Iron Ore, Chrome Ore and Bauxite in 2022-23. Having a vibrant & dynamic direct workforce of 2,300 people & an indirect workforce of 8,110 people, OMC has an ambitious target of around 45 Million Tonnes production by 2025. New initiatives taken by OMC in 2022-23 in the technology front includes integration of Customer Integrated Management Service (CIMS) Portal with SAP to provide end to end online services to customer, Implementation of Safety Management System in Mining and so on.

v. Mineral Revenues

4.2.13 Mineral production in Odisha increased by 137 Million Tonnes between 2016-17 and 2022-23. The revenue collection from mining and quarrying is INR 38,075 crore in 2022-23. This revenue is attributed to royalty revisions, rise in prices, increase in number of auctions, and stringent enforcement measures pertaining to mining.

vi. Mineral Exploration

4.2.14 During 2022-23, Department of Steel and Mines, Government of Odisha undertook 24 mineral investigation programmes over 45 sq. km. for exploration of minerals like Iron & Manganese Ore, Limestone & Dolomite, Graphite, Base Metal, Gemstone, etc. in the State. Twelve major minerals blocks have been explored and successfully auctioned in 2022-23 and thirty-three minor mineral blocks are in the pipeline for auction.



vii. Mining and local development – Role of DMFs & OMC

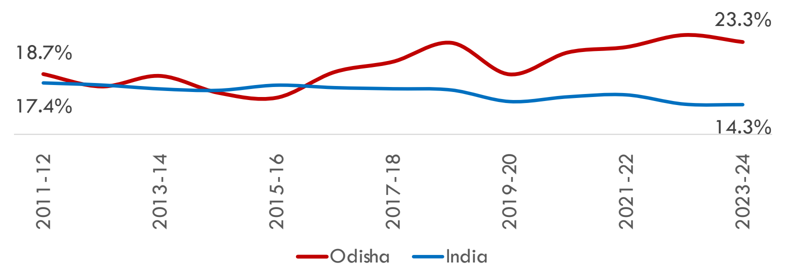
4.2.15 Across all 30 districts of Odisha, District Mineral Foundations (DMFs) work for the interest and benefit of people and areas affected by mining and related operations. Annual collection of funds under DMFs is INR 4,113 crore in 2022-23 in Odisha. Out of this collection, DMF has spent funds worth INR 2,883 crore (around 77 per cent of total annual expenditure in 2022-23) in high priority activities[1]. INR 840 crore has been spent in other priority areas such as physical infrastructure, irrigation and energy & watershed.

4.2.16 During 2022-23, OMC spent INR 88.27 Crore under the Head of CSR and Periphery Development (PD) to fulfil its CSR & PD responsibilities on activities such as providing healthcare facilities, improving quality education and promotion of talents, development of sports, environment protection and energy conservation and so on.

4.3 Manufacturing

4.3.1 Manufacturing is the largest sub-sector within industrial sector in Odisha. It constitutes 54 per cent of the industry GVA and 23 per cent of the State overall GSVA in 2023-24 (AE). The share of manufacturing sector in G(S)VA of Odisha (18.7 per cent) and India (17.4 per cent) were similar in 2011-12, as shown in Figure 4.10. However, since then, India has gradual increase in share of service sector in GVA while Odisha given its current stage of development, has seen intensification of industrial sector in State economy.

Figure 4.10 Share of Manufacturing in G(S)VA - Odisha and India



Note: Figures of Odisha and India are respectively for 2023-24 (FAE) and 2023-24 (PE)
Source: Directorate of Economics & Statistics, Government of Odisha and MoSPI, Government of India

[1] High priority activities of DMFs include Drinking Water Supply, Education, Environment Preservation and Pollution Control, Health Care, Sanitation, Skill Development, Welfare of Women, Children, Aged & Disabled people, Housing, Livelihood Programmes, Road Connectivity

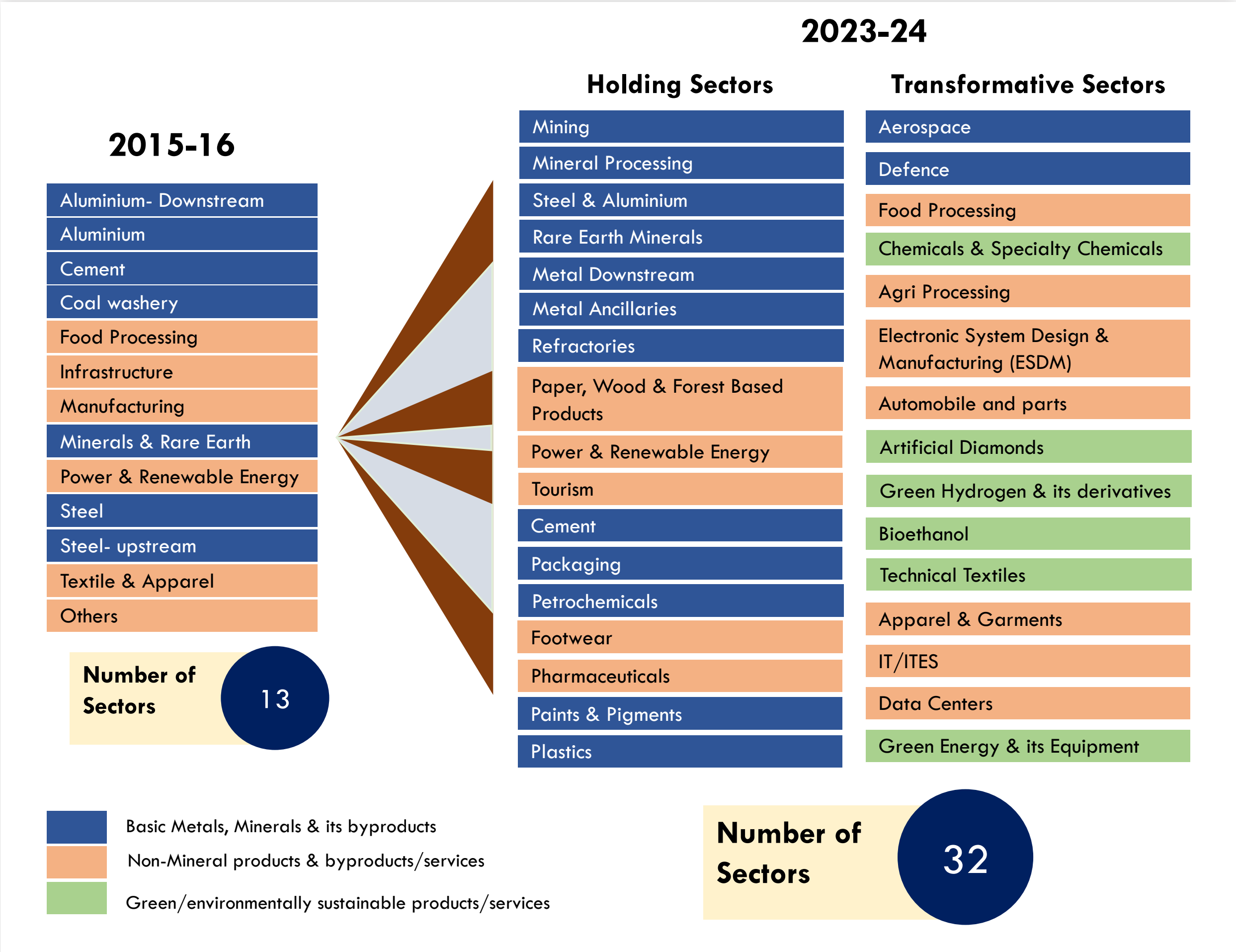
4.3.2 Manufacturing sector in Odisha is estimated to grow at 9.5 per cent in 2023-24 (AE). The sector grew at an average of 12.2 per cent between 2015-16 and 2023-24 (AE).

i. Manufacturing Profile

4.3.3 Odisha had 3,204 number of registered factories, out of which 2,692 factories were operational as per ASI 2021-22. GVA of registered factories increased from INR 41,016 crore in 2017-18 to INR 1 Lakh crore in 2021-22.

4.3.4 The trend in list of approved investment projects shows that gradually investors from wide variety of sectors have shown interest/commenced operations in the State. In 2015-16, investments were approved in 13 sectors, viz. Aluminium, Aluminium- Downstream, Cement, Coal washery, Food Processing, Infrastructure, Manufacturing, Minerals & Rare Earth, Power & Renewable Energy, Steel, Steel upstream, Textile & Apparel, etc. By 2023-24, there has been a jump in the number of sectors with approved investments in the State. Odisha was successful in attracting investment proposals across a wide range of sectors; both traditional and emerging. Figure 4.11 exhibits a list of sectors where new investment applications in large Industries Category in Priority and Thrust Sectors were received, during 2023-24.

Figure 4.11 | List of Approved Sectors of investment in Odisha: 2015-16 & 2023-24



Source: IPICOL, Government of Odisha

4.3.5 There is scope of further diversification of industries in the State. As per ASI 2021-22, mineral based manufacturing (viz. basic metals and coke & refined petroleum products) holds a share of more than 85 per cent in total manufacturing GVA of the State. On the other hand, non-mineral manufacturing sectors such as chemicals & chemical products, food products, other non-metallic mineral products, paper products and beverage constituted 4.1 per cent, 2.0 per cent, 1.9 per cent, 1.4 per cent and 0.5 per cent respectively in manufacturing GVA as per the latest ASI round.

4.3.6 Further, it is pertinent to note that GVA of basic metal industries registered a CAGR of 25 per cent between 2017-18 and 2021-22, even on a high base. This is highest among major organized manufacturing industries in the State (Table 4.4). On the other hand, all major non-mineral sectors in the State grew at a lower CAGR as compared to the basic metals sector, indicating sectoral concentration. Apart from basic metals and mineral based products, non - mineral sectors such as food products, beverage, rubbers & plastics, non-metallic mineral products, electrical equipment etc. is yet to make significant contribution to the industrial GSVA of the State.

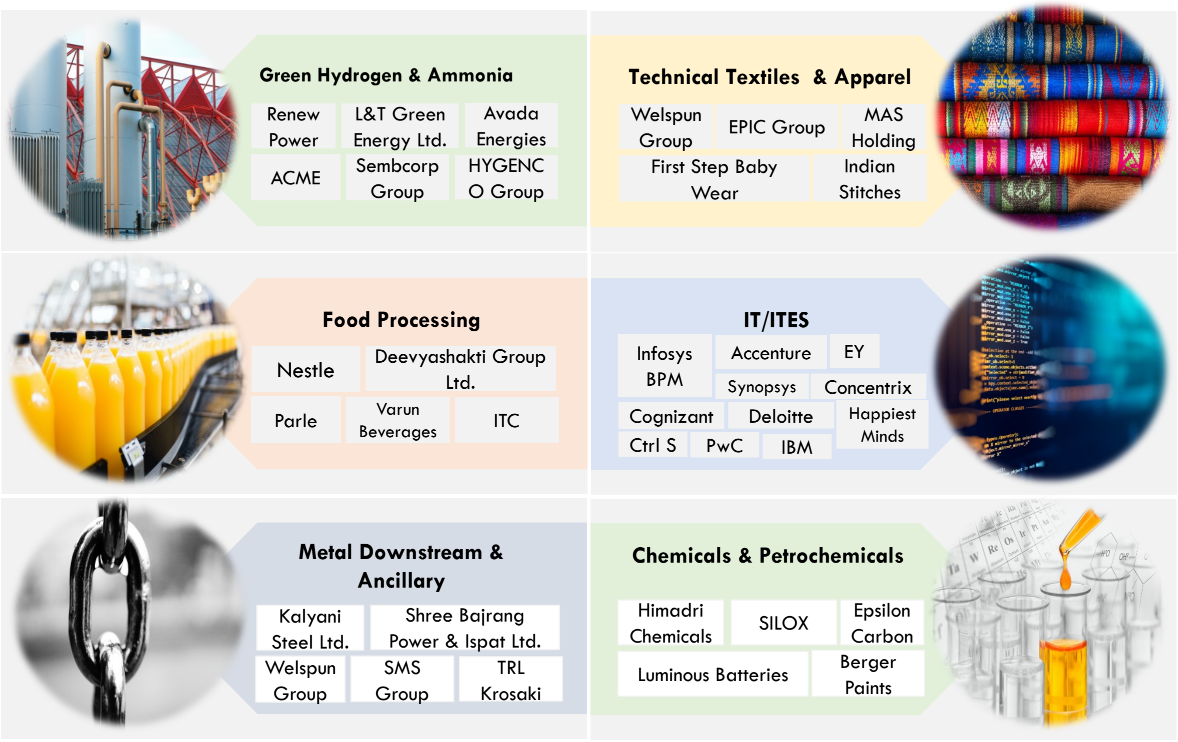
Table 4.4 | Top manufacturing industries and their contribution to manufacturing GVA

Sl.	Sector Description	Share in Manufacturing GSVA	CAGR (2017-18 to 2021-22)
1	Basic metals	78.1%	25.03%
2	Coke and refined petroleum products	7.4%	16.26%
3	Chemicals and chemical products	4.1%	18.11%
4	Others (which includes Cotton, Salt production, tobacco, wearing apparel, leather, wood, printing, computer, electronic & electrical equipment, other transport equipment, furniture, repair and installation of machinery, Waste collection, treatment and disposal activities, Publishing activities and others)	3.1%	-5.76%
5	Food products	2.0%	21.32%
6	Other Non-metallic Mineral products	1.9%	15.46%
7	Paper and paper products	1.4%	6.06%
8	Beverages	0.5%	14.71%
9	Rubber & Plastic products	0.3%	-3.61%
10	Electrical equipment	0.3%	-17.04%

Source: ASI 2021-22, MoSPI, Government of India

ii. Planning for Industries of the Future

4.3.7 Although Odisha is known for its metal-based manufacturing industrial base, the State could manage to attract and/or convert some of the marquee projects and investments in non-mineral sectors with opportunities of scalable employment generation for the present and future workforce. Some of the non-mineral sectors with approved investment and potential employment generation are highlighted.

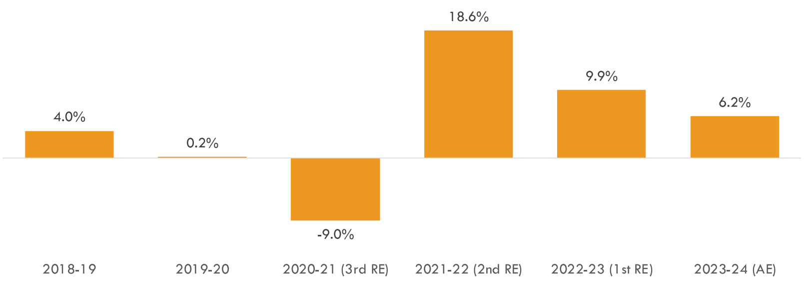


Source: IPICOL & E&IT Department, Government of Odisha

4.4 Construction

4.4.1 Construction is an important sector in Odisha, contributing 6.9 per cent of the State GSVA and 16 per cent of the industrial GVA in Odisha in 2023-24 (AE). Construction sector growth rate in the state has been volatile though average annual growth rate was around 4 per cent between 2012-13 and 2023-24 (AE). COVID had a major impact on the construction sector of Odisha and the sector contracted by 9 per cent in 2020-21. However, the growth rebounded in the following years. In 2023-24 (AE), construction sector in the State is estimated to grow at 6.2 per cent (Figure 4.12).

Figure 4.12 Annual Growth of Construction Sector GSVA at constant prices in Odisha since 2018-19



Source: Directorate of Economics & Statistics, Government of Odisha

4.4.2 Apart from bearing significance for growth potential, the Construction sector is known for its employment potential. It provides an avenue for large scale inclusion of labourers, shifting from the agriculture sector.

Table 4.5 Percentage of workforce engaged in Construction Sector – Odisha and India- 2022-23 (%)

Industry Sections of NIC-2008	Odisha (Rural + Urban)			India (Rural + Urban)		
	Male	Female	Person	Male	Female	Person
Construction	23.4	6.3	17.0	17.3	4.0	13.0

Source: PLFS 2022-23, MoSPI, Government of India

As per Table 4.5, 17 per cent of total workforce in Odisha is engaged in construction sector in 2022-23 as compared to 13 per cent in All-India level in 2022-23. Male workforce in the State participating in the construction sector was 23.4 per cent, which is highest among all major States.

4.5 Industrial Infrastructure

4.5.1 In Odisha, 126 industrial estates are operating in strategic locations with an area of 11,623 acres and 1,545 number of build-up sheds in 2022-23. Some of the key initiatives include creation of Industrial Areas (IAs) to cater the specific requirements of industries, such as an IT and IT-enabled service IA in Bhubaneswar, a stainless steel and downstream IA in Kalinga Nagar, Jajpur, and an Aluminium IA in Sambalpur and Jharsuguda. Additionally, the State established an electronic hardware manufacturing cluster at Info-valley Bhubaneswar, a Petroleum, Chemical, and Petrochemical Investment Region (PCPIR) at Paradip, and a Special Investment Region (SIR) at Dhamra.

4.5.2 Odisha provides infrastructural services for rapid establishment of industry, trade, and commerce in the State. The Industrial Development Corporation of Odisha (IDCO) facilitate industrial investments by providing ready-to-use infrastructure for the industries in the State. To this pursuit, a large number of industrial estates/ areas/ parks etc. were established and managed by IDCO in different strategic locations of the state. During 2022-23, 126 industrial estates were developed by the State in strategic locations with an area of 11,623 acres and 1,545 number of buildup sheds. This was more than what the State cumulatively developed between 2020 and 2022. Some of the major industrial infrastructure projects under implementation are given in the following exhibits.

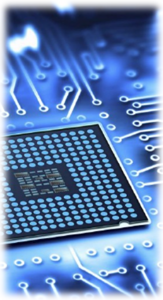
Infovalley Electronic Manufacturing Cluster, Bhubaneswar, Odisha

Project Profile:

- Over 200 acres of exclusive ecosystem for electronics manufacturing
- Project with total investment of over INR 200 Cr.
- Employment potential for more than 12,000 persons
- Co-located with major IT players and software developers such as Infosys, TCS, Wipro and Mahindra Satyam

Opportunities:

- Invertors
- Energy Metres
- LED Luminaire
- Printer/MFD
- Solar PV modules
- Accessories
- Tablets
- Notebooks
- Mobile Phone
- Modem/Router
- FPD TV
- Medical measuring instruments



Key Advantage of the Project:

- **Strategic Location:** Proximal to Airport (22 kms), seaport (130 kms) etc. Situated on National Highway 5
- Availability of **large pool of skilled and semi-skilled** manpower
- **Exclusive Special Incentive Package Scheme** for ESDM sector and attractive policy framework
- **Easy accessibility to the largest ports on the east coast** for easy access to the markets of ASEAN and Eastern Asia

Petroleum, Chemical & Petrochemical Investment Region (PCPIR)

Key Advantages:

- Strategically located amongst 4 PCPIRs
- Area development of over 70,000 acres
- Investment of USD 43.74 billion on numerous sectors
- Indian Oil Corporation Limited (IOCL) is the Anchor Tenant.
- Commitment of feedstock from IOCL Refinery.
- Exclusive SPV "Paradeep Investment Region Development Limited" for development of industrial infrastructure in the region.

Opportunities:

- Polyester Chips
- Fibres
- PET Bottles
- PET Chips
- Sheets and Thermoforming
- Synthetic Film
- Polyester Yarn
- PP Raffia (woven sack)
- Tubular Quenched PP
- Injection Moulding Products

Food Processing Parks at multiple locations

New Food Processing Parks

State of the art food processing parks with plug-and-play facilities for entrepreneurs

Park Name	Location	Area in Acres
Kesinga Food Park	Kesinga, Kalahandi	50
Nawarangpur Food Park	Bamani Nawarangpur	50
Ganjam Food Park	Konisi, Ganjam	50.05
Bargarh Food Park	Bhatli, Bargarh	58.85
Bolangir Food Park	Sadeipali Bolangir	50

Bargarh - Sugarcane, Vegetables, Groundnuts & Paddy

Kalahandi & Bolangir - Turmeric, Ginger, Potato, Maize, Mango, Jackfruit Pineapple

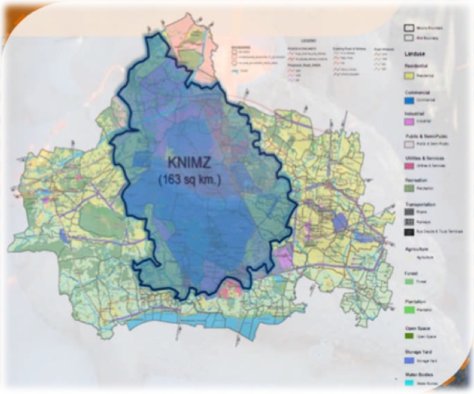
Nawarangpur - Maize, Paddy, Ragi Pulses, Cashews Wheat

Ganjam – Cashew, Tamarind, Paddy, Groundnut, Sugarcane, Oilseeds, Ragi, Mung, Biri, Fish, Meat, Milk & Vegetables.

Kalinga Nagar National Investment & Manufacturing Zone, Jajpur, Odisha

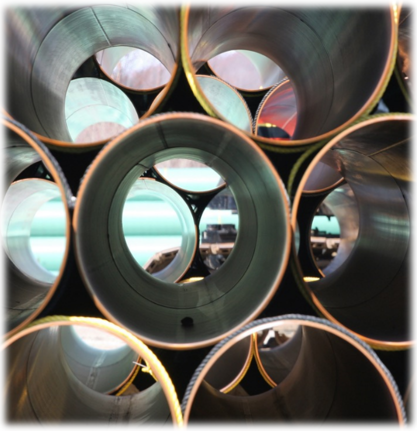
Snapshot of Steel Complex:

- Over 13,000 acres of development
- Symbiotic ecosystem built around existing steel plants
- State Government planning to develop this complex as National Investment Manufacturing Zone under National Policy of GoI
- Strong forward and backward linkage
- Easy availability and low cost of land



Opportunities:

- Manufacturing of Fabrication of Metal products
- Electrical Machinery and Equipment
- Manufacturing of motor vehicles
- Transport equipment
- Ancillary and downstream products



Key Advantage of the Project:

- Self-contained ecosystem of steel and metals
- Neighborhood with an industrial estate over 13,000 acres of land with 9 major steel companies
- Producing nearly 3.5 Million tons of steel per annum and have generated employment for over 40,000 people
- Mineral rich region with easy access to vast deposits
- Strategic location with proximity to Paradip and Dhamra ports
- Facilitation Support through initiatives
- Availability of large pool of skilled and semi-skilled manpower

4.5.3 **Plastic Park at Paradeep**, established over an area of 120 acres of land in PCPIR near IOCL Refinery Complex under the Plastic Park scheme of Department of Chemicals & Petrochemicals, Government of India with an investment of INR 106 crore.

4.5.4 A **Seafood Park at Deras** was established over an area of 153 acres of land based on a **Cluster-based approach** on hub and spoke model. This was the first-of-its-kind facility on the east coast of India exclusively focused on seafood and marine processing.

4.5.5 For promotion of investment in downstream & ancillary units in the Aluminium sector, **Angul Aluminium Park** is being developed jointly by IDCO & NALCO over 223 acres of land at Angul in the 1st phase. Seven units were allotted in 74 acres of land in the park. State Government further approved an expansion of existing Aluminium Park with an area 358 acres.

4.5.6 Apart from that, **Vedanta Aluminium Park**, was developed by Vedanta Limited, in partnership with IDCO near the Aluminium smelter in Jharsuguda, Odisha. The State also possess one Fibre Reinforced Plastic (FRP) Aluminium smelting plant in Hirakud, Sambalpur with a capacity of 135 KTPA.

4.5.7 **IT Incubation Centre** was developed in the Infocity IT/ITES SEZ, Chandaka, Bhubaneswar over an area of 2.4 acres of land.

4.5.8 **Office cum commercial complexes** is coming up at different districts of the State to attract corporate houses opening their business activities. While commercial towers at Dhenkanal and Jharsuguda and will be inaugurated, commercial towers across 10 locations are approved by Government.

4.5.9 State plans to establish a **Technical Textile Park in Dhamnagar, Bhadrak** over 234 acres of land.

4.5.10 The State Government was also instrumental in the following tasks:

• Up-gradation of 10 Existing Industrial Estates in FY 2023-24

• 6 DPR approvals from Ministry of MSME, Govt of India for up-gradation of industrial estates under MSME-CDP Scheme

• Workers' Hostel under SIDBI Cluster Development Fund

• Development of Industrial Clusters in Dhamnagar (Bhadrak), Begunia (Khorda) & Golamunda (Kalahandi)

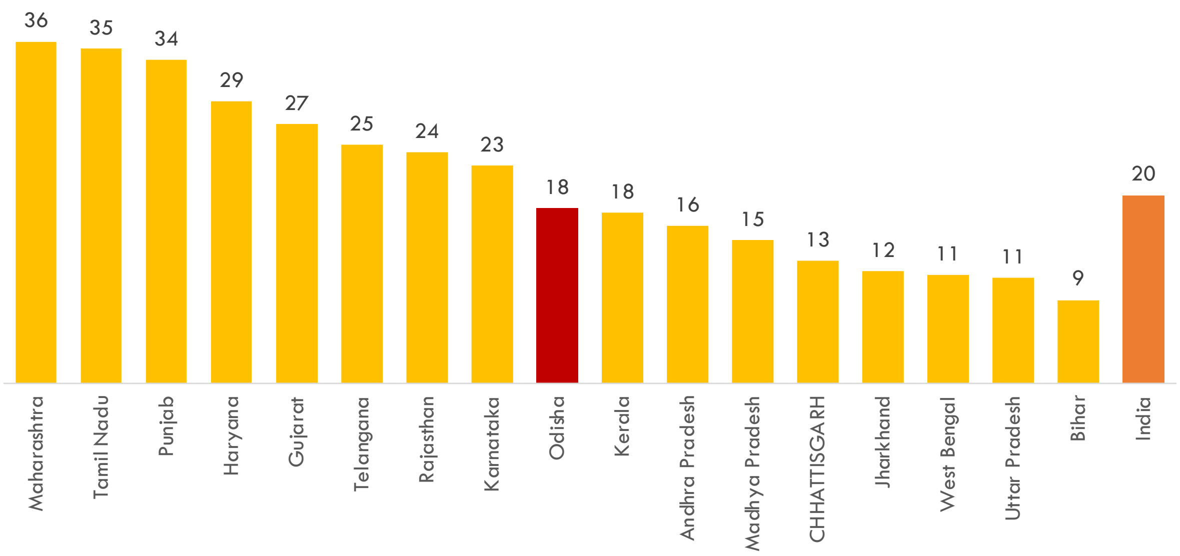
• Development of Metal Downstream Park in Badamal (Jharsuguda) in 126 acres of land with an estimated project cost of INR 75 crore

• Development of Odisha Economic Corridor (East Coast Economic Corridor) - to develop two nodes mainly Gopalpur - Bhubaneswar - Kalinganagar (GBK) and Paradeep - Kendrapada – Dhamra Subarnarekha (PKDS) for industrial infrastructure development in the Odisha leg of East Coast Economic Corridor.

4.6 MSME Development

4.6.1 Micro, Small & Medium Enterprises (MSME) are the backbone of Odisha economy, contributing significantly to employment generation, value addition, exports, and overall growth and development of the State's economy. As per the UDYAM Registration Portal, Government of India, 8.4 lakh MSME units are registered from Odisha as of June 2024. Out of this, 98.2 per cent (8.26 lakh) registered units are micro enterprises and 1.7 per cent are small enterprises (14.3 thousand). The remaining 0.1 per cent are medium enterprises which comprises of merely 1073 units. If scaled by per thousand population, the number of Udyam registered MSMEs in Odisha is 18 as of June 2024, which is lower as compared to All-India average of 20. Odisha is ranked 9th among 17 major States in this regard. Maharashtra tops the list with 36 Udyam registered MSME per thousand population, followed by Tamil Nadu (35), Punjab (34), Haryana (29) and Gujarat (27) (Figure 4.13).

Figure 4.13 | Udyam registered MSME per thousand population (in numbers) as of June 2024



Source: MSME Dashboard, Ministry of MSME, Government of India & MosPI Population Projections, MOHFW, Government of India

4.6.2 However, it is pertinent to note that the total number of MSME units in the State would be much higher that the units registered in the Udyam Portal as evident from NSSO unincorporated enterprise survey. As per Annual Survey of Unincorporated Sector Enterprises (ASUSE), 2022-23, Odisha has 29.4 lakh unincorporated (non-agricultural) enterprises in the State.

4.6.3 Advances to MSMEs by banks in Odisha grew from INR 13.8 thousand crore in 2011-12 to INR 62.3 thousand crore in 2022-23 growing at a CAGR of 14.7 per cent during the period, as per the 171st State Level Bankers' Committee (SLBC).

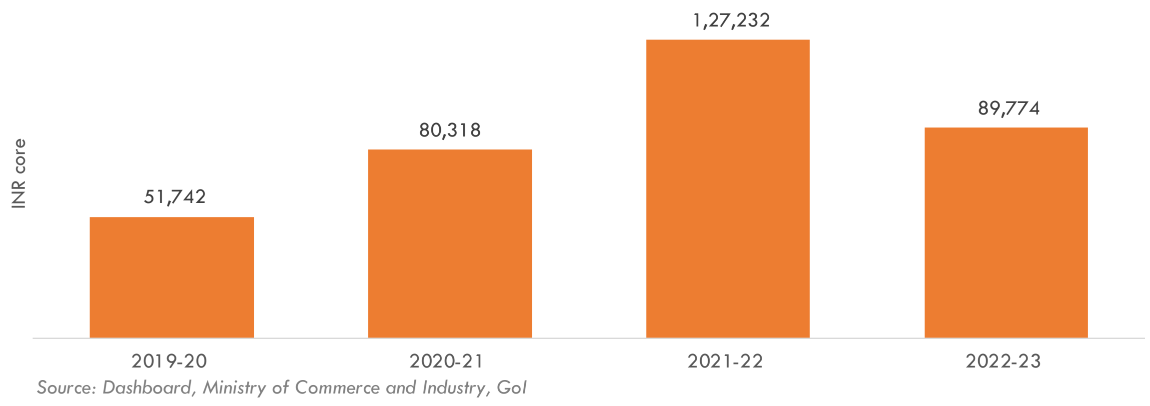
4.7 Export promotion and Marketing

i. State Export Scenario

4.7.1 Merchandise exports from Odisha touched nearly INR 90 thousand crore in 2022-23 (Figure 4.14). Total exports from Odisha grew at a CAGR of 20.2 per cent between 2019-20 and 2022-23.

4.7.2 The State is ranked 10th among all states in terms of exports (by values) with 2.5 per cent national share. The first three states in terms of highest share of merchandise exports in India are Gujarat (33.1 per cent), Maharashtra (16.1 per cent) and Tamil Nadu (9.0 per cent).

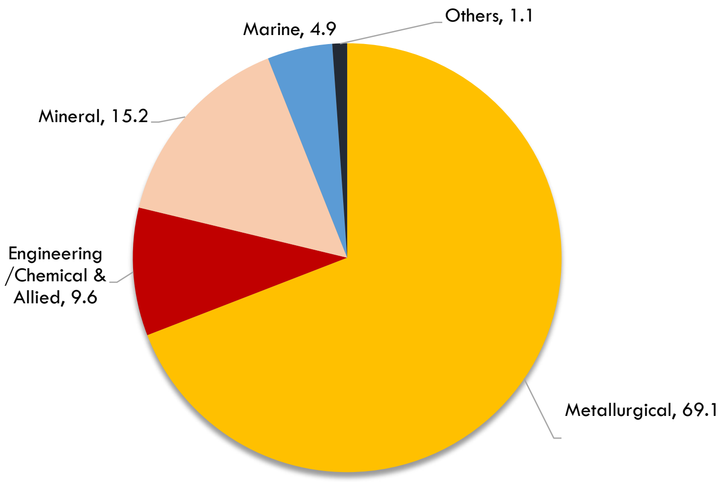
Figure 4.14 Total exports in Odisha – 2019-20 to 2022-23



Source: Dashboard, Ministry of Commerce and Industry, Government of India

4.7.3 Major contributors to State exports are concentrated in metallurgical products (69.1 per cent), minerals (15.2 per cent), and engineering, chemical and allied products (9.6 per cent). Other exports include marine products (4.9 per cent) and textiles (0.6 per cent) (Figure 4.15). Between 2019-20 and 2022-23, the share of metallurgical products has increased by 21 percentage points, from 48 per cent to 69 per cent. However, the same in case of engineering, chemical and allied products increased by 1 per cent and that of marine products have declined by 1 per cent between the given period. Currently, exports

Figure 4.15 Composition of Merchandise Exports (in per cent)-2022-23



Source: Directorate of Export Promotion & Marketing, Government of Odisha

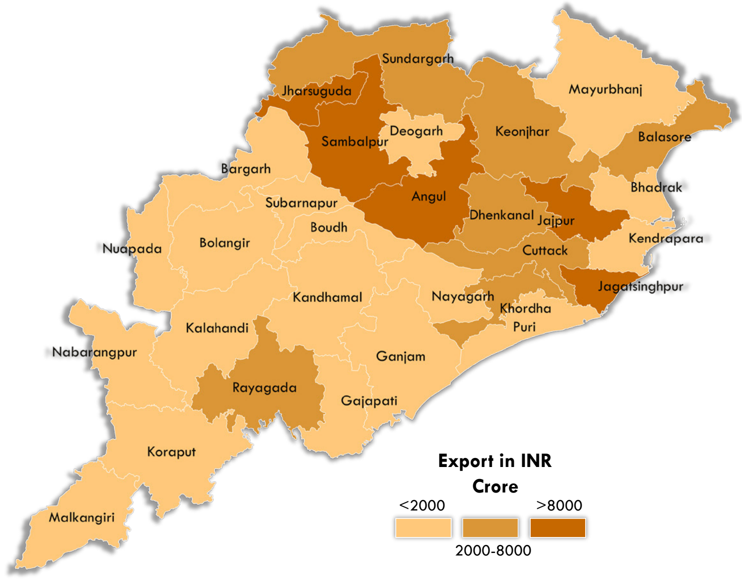
are concentrated in metallurgical products (69.1 per cent), minerals (15.2 per cent). There is a need to diversity towards downstream and ancillary industries, promote agriculture and fisheries exports, improve multi-modal connectivity, enhance cargo handling capacity at Bhubaneswar airport, and facilitate better market access for MSMEs, among others.

4.7.4 Given that Odisha is one of the richest mineral states in India, offering a tremendous resource base for industrialization, a well-developed mineral industry provides the required foundation for establishment of engineering and allied industries. From this sector, items such as Aluminium conductors, cables, transformers etc., including some chemical and allied products like refractories, cement, paper, tyres & tubes, pesticides, explosives, PVC pipes etc. can be exported from Odisha to overseas markets. The small and medium enterprises can play a seminal role in the industrial and export performance of the State.

ii. Share of Districts in State's Export

4.7.5 Out of the total State exports of nearly INR 90 thousand crore in 2022-23, export worth INR 65.5 thousand crore (more than 70 per cent) came from 5 districts of the State, viz. Jharsuguda, Angul, Sambalpur, Jagatsinghpur & Jajpur. A district wise map by export values (in INR crore) is presented in Figure 4.16.

Figure 4.16 | Share of Districts in Exports – 2022-23 (Value in INR Crore)



Source: Dashboard, Ministry of Commerce and Industry, Government of India

4.7.6 In terms of exports, Jharsuguda was top ranked across all districts in Odisha with an export value of INR 30,153 crore and a State export share of nearly 34 per cent in 2022-23. In fact, Jharsuguda is amongst the top 25 exporting districts of the country with the top contributing export product being 'Engineering Goods', according to Export Preparedness Index 2022.

4.7.7 Angul was positioned in the second place as far as State export value and share is concerned. The district reported an export value of INR 8,910 crore with a state export share of approximately 10 per cent in 2022-23. The district is a major producer of Iron and Steel in the State with an export turnover of nearly INR 5 thousand crore in 2022-23. Other products exported from the district include organic or inorganic compounds of precious metals, rare earth metals etc. Jagatsinghpur also contributed nearly 10 per cent of State exports in 2022-23, with an export value of INR 8,590 crore. Major products exported includes mineral (petroleum) fuels, agglomerated iron ore pellets and Vannamei Shrimp. Sambalpur and Jajpur respectively contributed around 9.5 and 8 per cent of export share in Odisha in 2022-23.

4.8 Handicrafts, Handlooms, Sericulture, and Textiles

i. Handicrafts

4.8.1 Handicrafts is an integral part of Odisha's cultural heritage. Handicraft from the state is famous for its rich design and quality. There are 51 different crafts practiced by about 1.60 lakh artisans across the State. Handicrafts in Odisha is a potential sector for providing self-employment, both in rural and urban areas with less capital investment, relatively simpler technology, and scope of national and international marketing with value addition. 7,211 additional handicrafts units were set up in Odisha in 2022-23, making the total number of handicraft units nearly 40 thousand. Employment generation from the sector has increased 3X between 2015-16 and 2022-23 with the sectoral employment touching nearly 65 thousand marks. However, the share of handicrafts in State export basket of 2022-23 is negligible.

4.8.2 Odisha State Co-operative Handicrafts Corporation Ltd. (Utkalika) provide marketing support to the handicraft artisans/SHGs/cooperatives through its diversified branches – eight inside the State and six outside. Furthermore, it undertakes developmental activities such as opening of raw-materials bank, Skill training, Product development Programmes, Geographical Indicator (GI) Registration etc. apart from organizing exhibitions at strategic locations.

4.8.3 State Institute for Development of Arts & Crafts (SIDAC) is mandated for all-round development of Handicraft sector in the State. The organization manage training courses, Design Cell, Museum, and International Marketing Cell of the sector, apart from implementing the following State Government schemes/programmes:

Development Craft Clusters

Revival of Languishing craft

Organizing Seminars/Workshops

CFCs at Khandagiri & Handicraft complex

Odisha Crafts Museum

Toshali National Crafts Mela

Ekamra Haat, Bhubaneswar

ii. Handlooms

4.8.4 Odisha is well – known for its traditional handloom weaving, particularly for the intricate IKAT designs. It is among the few Indian States to have excelled in this traditional craft. Odisha handloom crafts are well known in the national and international markets for its artistic designs, most of which are non-replicable in power-looms. The number of looms in Odisha exceeded 57 thousand till March 2023, catering to around 70 thousand State households. Out of this, total number of looms under cooperative fold/having Primary Weavers Cooperative Societies (PWCS) status were 40,901 in 2022-23. In terms of district wise production, Bargarh topped the list with highest number of looms - 11121, followed by Cuttack (including Athagarh – 9,748), Subarnapur (4,546), Bolangir (2,676) and Boudh (2,483). These five districts, together, constituted almost 75 per cent of handloom industries in Odisha.

iii. Sericulture

4.8.5 Silk is an important raw material for the growth of handloom industries in the state. The production of silk, commonly known as sericulture, is one of the traditional activities in Odisha with the State focusing on three major types of silk viz. Tussar, Eri and Mulberry. Tussar farming is mostly adopted by tribal farmers in different districts of the State with high forest covers. There are 63 primary Tussar based Co-operative societies which are affiliated to Odisha State Cooperative Tasar & Silk Federation (Serifed) at the apex level. During 2022-23, an estimated 80,685 Kahans (~1291 lakh no.) of Tussar cocoons were produced from 802 Hectares of Tussar food plants. Production of raw silk in Odisha was estimated as nearly 130 MT in 2022-23 with almost 17,000 farmers covered in the sector.

4.8.6 Eri is cultivated in 13 districts of Odisha. Castor plantation raised by farmers are utilized for Eri rearing & estimated 8,290 kg of green cocoons were produced during the year 2022-23. Mulberry

is another non-traditional form of Sericulture, and highly climate sensitive. It is cultivated in limited pockets of Gajapati, Koraput, Rayagada, Kalahandi & Phulbani. During 2022-23 an estimated 3,789 kg of Mulberry cocoons were produced with involvement of 283 farmers. On increasing the production of Mulberry worms, the State can benefit from exporting those in the global market, which are known for its nutritional and pharmaceutical values.

4.9 Conclusion

4.9.1 Industry is the major driver of economic growth in Odisha with the sector contributing 43.3 per cent of total GSVA and employing 26 per cent of total workforce. Manufacturing and mining are the two major contributors of the industry sector, with the State having all necessary elements to become a major destination for investors.

4.9.2 Although Odisha is rich in minerals, industrial diversification remains an area of concern for the State. While basic metals, minerals and petroleum products are the core of State manufacturing, the State needs to increase investments across various downstream and ancillary industries pertaining to basic metals. This is essential for increasing value addition within the State, thereby generating considerable employment and increasing exports.

4.9.3 While investments have started to flow in new-age sectors such as green hydrogen & ammonia, technical textiles, food processing, apparels, IT enabled services, chemicals and petrochemicals etc., it is important to accelerate the momentum of such investments.

4.9.4 MSME plays a crucial role in increasing employment and exports. MSME development remains a priority area for the State. 8.4 lakh MSME units in Odisha are registered with UDYAM portal, Government of India as of June 2024. Apart from increasing the number of UDYAM registrations, there is a need for the State to address challenges of MSMEs pertaining to access to finance, access to markets, access to skilled labour and concerns relating to infrastructure.

CHAPTER

5

SERVICES-MAKING GROWTH INCLUSIVE

ABSTRACT

Majority of the advanced economies generate high proportion of economic activity from the service sector. This is because as economies grow richer, the purchasing power increases and demand for various services such as entertainment, financial, tourism, personal services grow. In India too, share of services sector in GVA has gone up. In 2023-24 (PE), Service Sector share in Gross Value Added of India was 55 per cent. Comparatively, in 2023-24 (AE), services sector in Odisha contributed 36.3 per cent to GSVA. There are various trends which will boost services sector in the future. These include (i) increased use of services as input in other sectors (agriculture and industry), (ii) changing consumer tastes and preferences towards end-to-end solution is forcing manufacturing firms to integrate post sales services in goods, (iii) technology is transforming previously non-tradeable services such as education, health to partially tradeable services and facilitating economies of scale by serving international markets, and (iv) positive elasticity of demand for services with per-capita income.

Service sector in Odisha is estimated to grow at 9.2 per cent in 2023-24 (AE). Unlike manufacturing and agriculture sector, services sector is more complex and diverse with range of distinct sectors clubbed under one head. Trade, repair, hotels, and restaurants, the principal component of service sector, registered the highest growth of 17.1 per cent in 2023-24 (AE). Public administration capturing administrative services of central, state and local government in the State registered 12.5 per cent, transport and related services (9.4 per cent), other services (5.4 per cent), real estate & professional services (3.9 per cent) and financial services (2.3 per cent).

In terms of sub-sectoral share, services in Odisha is dominated by 'trade, repair, hotels and restaurants' and 'other services'. Other services include, among others, value addition in health, education, arts and entertainment sectors. In 2023-24 (AE), the share of these two sectors in services GSVA stood at 23.3 per cent and 21.8 per cent respectively. This is followed by transport and services related to broadcasting (18.4 per cent), real estate & professional services (16 per cent), public administration (12.5 per cent) and financial services (7.9 per cent).

Services sector accounted for 26.1 per cent of Odisha's total workforce in 2022-23, being the second largest employer after agriculture and allied sector (48.1 per cent). The highest number of job creation in services took place in trade, repair, hotels and restaurants sub-sector which accounted for 49 per cent of total services sector employment. This is followed by transport and communication sector with 17 per cent share and education sector with a share of 12.0 per cent in total services sector employment.

There are certain sub-sectors within services that are well-positioned for growth. These include the financial services, real estate and communications sector, IT/ITeS and Tourism. Odisha is currently at low level of credit penetration among the masses although State has made substantial progress in account ownership due to Jan Dhan Yojana. Inclusion of masses in the formal banking thus gives the opportunity to design relevant and affordable financial products for farmers, women, youth to achieve their potential. Digital Finance could be key enabler in State's journey towards universal access to affordable and relevant financial services.

Tourism is another sector which has significant employment potential and creates demand for products and services for range of services, i.e., food and beverages, hotels and restaurants, transportation, trading, personal services to name a few. Odisha has range of tourist attractions meeting tastes and preferences for variety of tourist categories. There is a need to attract not only greater number of tourists but also high-spending tourists such as foreign tourists. In this respect, it is important that Odisha offers value for money for foreign tourist apart from religious tourism. Last mile connectivity, skilled tourism workforce, availability of reliable information, ensuring safety of tourists, quality accommodation facilities in adequate quantity are some of the areas which can be boost tourist footfall in the State. Demand for IT/IT enabled services has also increased especially post COVID-19 induced transition to digital working environment globally. State can play its role in IT/ITES sector leveraging its strengths.

5.1 Introduction

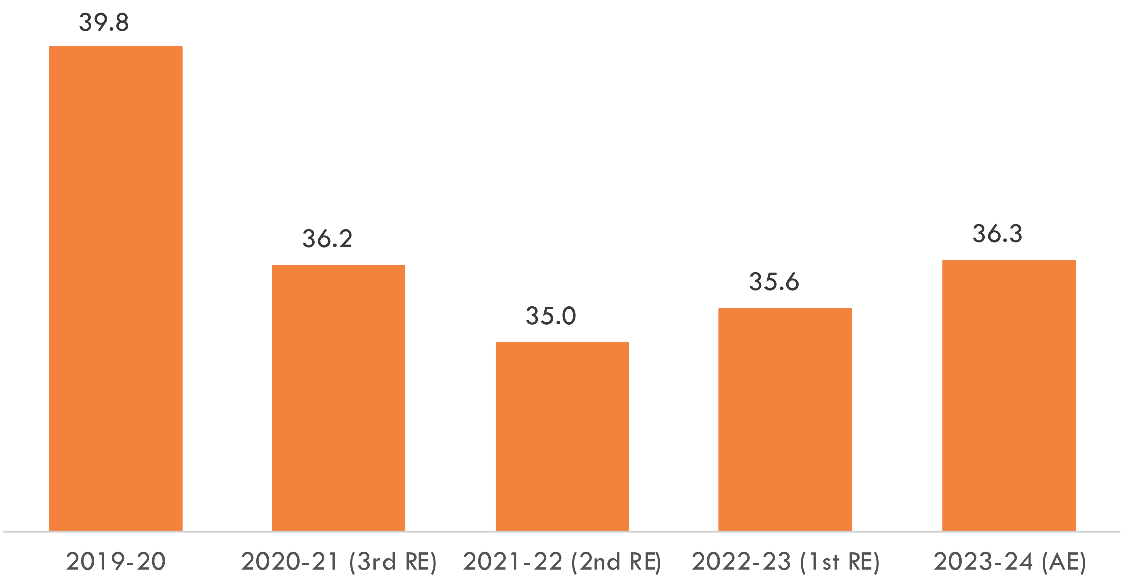
5.1.1 Services sector in India, over the years, has played a dominant role. In 2023-24 (AE), Services sector in India contributed 55 per cent of India's Gross Value Added. This is due to multiple factors. First, demand for services is generally positively elastic to change in income. As income increases demand for various services such as entertainment, art, tourism also increases. As per the latest Household Consumption Survey 2022-23, share of services such as education, medical (hospitalization), conveyance, consumer services, entertainment, rent in monthly per-capita consumption expenditure has gone up collectively from 14.8 per cent in 1999-2000 to 24.9 per cent in 2022-23.

5.1.2 Second, Service Sector's contribution to other sectors such as manufacturing, mining and agriculture as input has also move up over time. As per Reserve Bank of India, INDIA KLEMS database 2023, share of service cost in gross output of agriculture, hunting, forestry and fishing has gone up from 4.9 per cent in 1990-91 to 6.9 per cent in 2021-22. Similar increase is seen in other sectors such as mining and quarrying (9.4 per cent to 15.4 per cent), food products, beverages and tobacco (14.4 per cent to 20.6 per cent), manufacturing (12.4 per cent to 18.5 per cent), construction (21.6 per cent to 25.9 per cent). This is due to multiple factors such as application of emerging tech in production processes, increased reliance on specialized service providers (such as bookkeeping, accounting, legal), and changing consumer preferences towards completion solutions than products only, forcing manufacturing firms to integrate service in goods sales.

5.1.3 Third, trade liberalization reforms in services and other reforms in India has also led to increase in export of services. Fourth, with technological advancement, many of previously non-tradeable services such as education, health have transformed into partially tradeable services in the form of EdTech, Healthtech, Virtual Tourism. This is creating opportunities to achieve scale in production of such services and thus enhancing productivity.

5.1.4 Odisha has also seen similar increase in share of Service sector albeit at lower pace. Services sector in Odisha contributed 36.3 per cent to State GSVA in 2023-24 (AE), comparatively lower than India average.

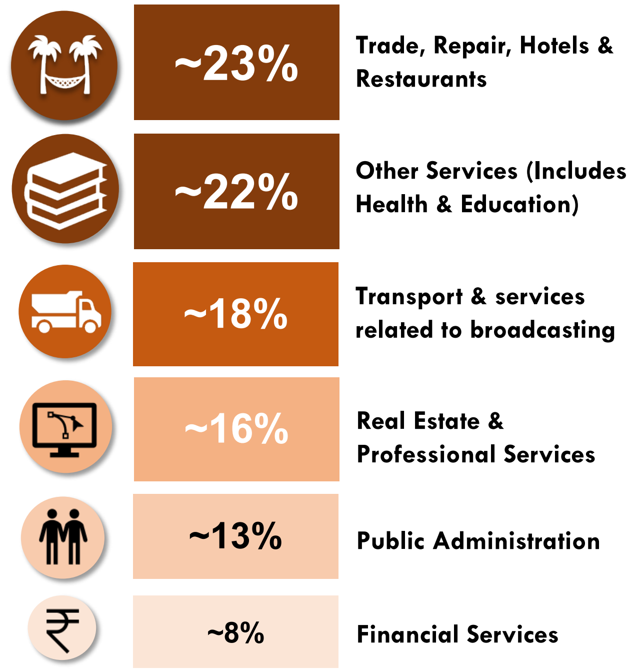
Figure 5.1 Share of services sector GVA in overall State GSVA (%)



Source: Directorate of Economics & Statistics, Government of Odisha

5.1.5 Unlike Manufacturing and Agriculture and Allied sector, services sector is highly diverse sector. The Sector comprise of range of segments such as trading, health, education, transportation services, hotels and restaurants, real estate services, professional services such as legal, consultancy, accounting etc., public administration (central, state and local government administrative activities), personal services, entertainment, and financial services. Tourism constitute an important part of services sector but in the state income accounts classification, there is no separate category for tourism sector. Tourism sector is distributed across agriculture, industry and services sector.

Figure 5.2 Contribution of sub-sectors in services GSVA-Odisha-2023-24 (AE)



Source: Directorate of Economics & Statistics, Government of Odisha

5.1.6 Within service sector distribution of Gross State Value Added is shown in Figure 5.2. Similar to other states, trade and repair services constitute more than 20 per cent of GSVA. This is expected since trading play an important role of connecting producers with consumers. Secondly, repairing services become prominent with increased ownership of durable goods which require regular repair and maintenance such as air conditioners, cars, television computers etc. This is expected to gain further importance with improvement in household ownership of durables. In 2019-21, as per National Family Health Survey-5, nearly 58 per cent of households owned a television, nearly 82 per cent owned a electric fan and nearly 14 per cent owned air conditioner.

5.1.7 Other services include, among others, value addition in health, education, arts and entertainment sectors are the second biggest contributor to services sector GSVA. This could be attributed to current level of disease burden in the State. In Odisha, Infant Mortality Rate per 1000 live birth was 36.3 in 2019-21.

5.1.8 Transport services is linked to extent of movement of people and goods within the State. Road density in the State has improved over time. In Odisha, road density per 100 sq km was 196.3 km as against All-India average of 165.2 km among major states. Rail transport play an important role in movement of primary articles such as coal, iron ore and other minerals from mining districts to different parts of the country. With State's focus on connecting various regions in the state to nearest growth centres, the transport services could grow too.

5.1.9 Real estate services is linked to level of urbanization rate. In 2021, it is estimated that urbanization rate in Odisha was 18 per cent which is comparatively lower than All-India average of 34 per cent (Odisha Economic Survey 2021-22). As urbanization rate improves, demand for various real estate services such as renting, brokerage, legal services could grow as well.

I. Growth in Services Sector

5.1.10 Services sector is estimated to grow at 9.2 per cent, in 2023-24 (AE) as against 7.5 per cent in 2022-23. Services sector in Odisha was the worst hit sector during COVID pandemic owing to its contact intensiveness. The sector managed to recover from pre-pandemic levels of economic activity (in real terms) in 2023-24.

Table 5.1 Growth in Services sub-sectors GSVA at constant prices over last 5 years (%)

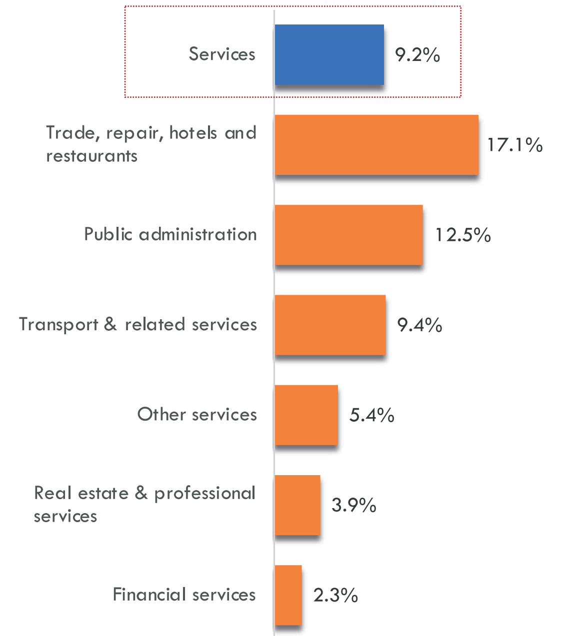
Sub-Sectors	2019-20	2020-21 (3rd RE)	2021-22 (2nd RE)	2022-23 (1st RE)	2023-24 (AE)
Trade, repair, hotels and restaurants	6.6	-23.8	5.7	7.3	17.1
Transport, storage, communication & services related to broadcasting	3.8	-16.8	26.3	12.1	9.4
Financial services	7.4	4.5	-2.2	8.4	2.3
Real estate, ownership of dwelling & professional services	0.7	-1.9	-3.5	1.9	3.9
Public administration	16.0	-1.8	-0.9	7.1	12.5
Other services	12.8	-12.0	18.3	8.8	5.4
Services	7.3	-11.4	7.3	7.5	9.2

Source: Directorate of Economics & Statistics, Government of Odisha

5.1.11 Trade, repair, hotels, and restaurants registered the highest growth of 17.1 per cent in 2023-24 (AE), followed by public administration (12.5 per cent), transport and related services (9.4 per cent), other services (5.4 per cent), real estate and professional services (3.9 per cent) and financial services (2.3 per cent) (Figure 5.3).

5.1.12 While the sub-sector, Trade, repair, hotels, and restaurants in Odisha experienced contraction of 23.8 per cent in 2020-21 (3rd RE), transport, storage, communication and services related to broadcasting experienced contraction of 16.8 per cent in the same year owing to halts in railway and road movements. However, the State experienced a recovery in all contact-intensive sub-sectors, as shown in Table 5.1. Trade, repair, hotels and restaurants, the most affected sub-sector in services is estimated to grow at 17.1 per cent in 2023-24 (AE). Transport and related services followed similar trends with the sub-sector estimated to grow at 9.4 per cent in the same period.

Figure 5.3 Growth of services sector & sub-sectors- between 2022-23 and 2023-24 (AE)



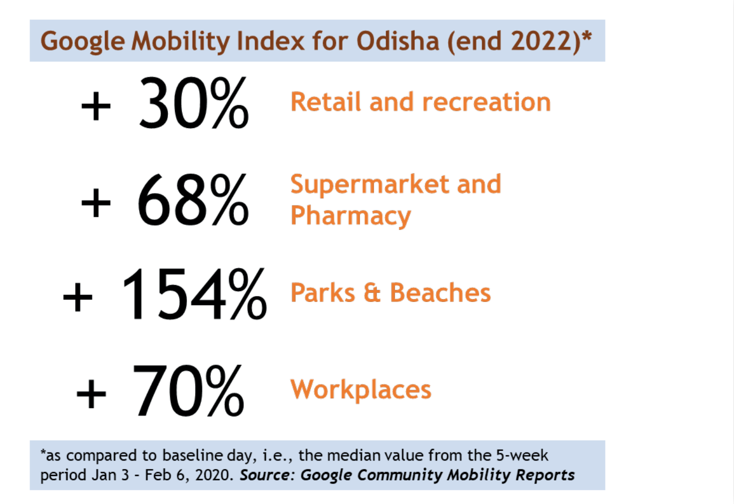
Source: Directorate of Economics & Statistics, Government of Odisha

5.1.13 Health and education services in the State too experienced a year – on – year growth of 18.3 per cent in 2021-22 (1st RE) and grew at more than 5 per cent since then. In terms of transport services, Odisha is estimated to gain momentum in 2023-24 (AE), with railways, road, waterways and airways enduring a year-on-year growth of 7.4 per cent, 8.1 per cent, 9 per cent and 12 per cent respectively.

5.1.14 Non-contact intensive sub-sectors such as financial services, real estate and professional services and public administration remained moderately resilient throughout the COVID phase. While financial services in Odisha is estimated to grow at 2.3 per cent in 2023-24 (AE) over a relatively higher growth rate of 8.4 per cent in 2022-23 (1st RE), real estate and professional services is estimated to grow at 3.9 per cent in 2023-24 (AE).

5.1.15 This is also reflected by Google mobility indices that track how movement around specific areas have changed since pre- pandemic baseline. It shows that movement around retail and recreation areas – comprising places like restaurants, cafes, shopping centers, theme parks, museums, libraries, and cinemas has increased by 30 per cent in Odisha by the end of 2022, as compared to the baseline median value, considered during early 2020. Similarly, the State has increased its footprint in supermarket & pharmacy, parks and beaches and workplaces.

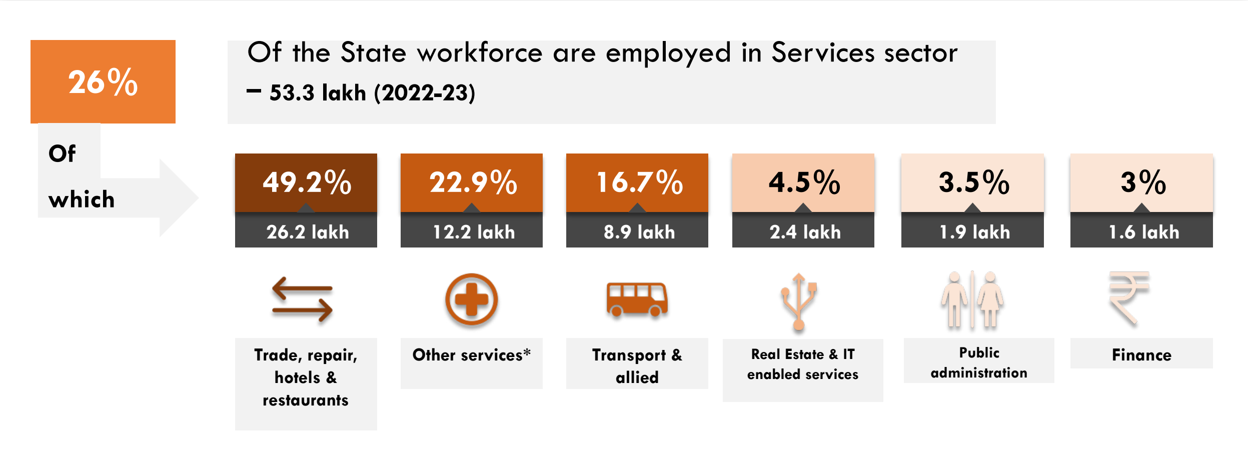
Figure 5.4 | Google Mobility Index



II. Employment

5.1.16 Services sector accounted for 26.1 per cent of Odisha's total workforce in 2022-23, being the second largest employer after agriculture (48.1 per cent). In absolute terms, services sector employed 53.3 lakh workforce in 2022-23.

Figure 5.5 | Employment in Services – A Snapshot



Note: Other Services include Health & Education
Source: Periodic Labour Force Survey (2022-23), MoSPI, Government of India

Box 5.1: Potential of services sector in employment generation

This section classifies Odisha's services sub-sectors using a World Bank framework. The objective is to understand the potential of each sector based on their scalability, innovation potential, spillover effects and linkages with other sectors and their ability to generate skilled jobs. As per the framework classification of World Bank, Odisha's 'Financial Services' and 'Real Estate, ownership of dwellings and professional services' sectors fall under the group of 'Global Innovator Services', i.e., services which have high productivity, contributing highly to gross value added but constitutes a small share of the workforce. On the other hand, relatively low-skilled sectors such as Transport, Storage, Hospitality, Trade, and administrative jobs, constitute a higher proportion of Odisha's GVA and a higher share of employment (16.7 per cent), however demonstrating low worker productivity (per worker GVA).

While the low skill sectors look promising in terms of their ability to generate employment and contribute to the economy, specific focus on high-linkage sectors such as transport and communication can generate manifold benefits for the associated sectors that benefit from good logistics services such as manufacturing, trading, agricultural produce distribution and Business Process Outsourcing. Simultaneously, focusing on building a larger cohort of skilled workforce who can contribute to Odisha's Global Innovator services can propel value addition and higher incomes, not just for these services but also the inter-linked sectors which benefit from ICT and financial services such as MSMEs, agriculture, manufacturing sectors, etc. The Global innovator services can specially play a significant role in the servicification of manufacturing, especially the mining sector in Odisha's context to enable the sector to transform into higher value addition as well as create opportunities for employment in a traditionally capital-intensive sector.

Table 5.2 Classification of Odisha's service sub-sectors as per World Bank's framework

Classification of Services in Odisha	% of GSVA (2023-24 AE, current prices)	% of workforce (2022-23)	Per worker GVA in INR lakh (2022-23)	Innovation	Spillover/ linkages
Global Innovator Services					
Financial services	2.9	0.8	13.1	High	High
Real estate, ownership of dwelling & professional services & Administrative and support services	5.8	1.2	17.6	High	High
Low Skill Tradable Services					
Transport, storage, communication & services related to broadcasting	6.7	4.4	5.5	Moderate	High
Trade and repair	7.8	10.2	2.3	Low	Moderate
Hotels and restaurants	0.7	2.7		Low	High

Classification of Services in Odisha	% of GSVA (2023-24 AE, current prices)	% of workforce (2022-23)	Per worker GVA in INR lakh (2022-23)	Innovation	Spillover/ linkages
Low-skill domestic services					
Public administration	4.5	1.0	17.6	Low	Low
Skill-intensive social services					
Other services	7.9	6.0	4.7	Low	Low

Source: Periodic Labour Force Survey, 2022-23, MoSPI, Government of India, Directorate of Economics & Statistics. Adapted from Nayyar, Gaurav, Hallward-Driemeier, Mary, Davies, Elwyn, 2021, At Your Service? The Promise of Services-Led Development. Note: Other services includes education and healthcare services

For Odisha to leverage the benefits of servicification of traditional sectors, there is a need to reimagine how services can be used as inputs to enhance the productivity and output of Odisha's traditionally dominant sectors of agriculture, manufacturing, and mining. Experiences from other countries have shown that such linkages have helped diversify the applications and value addition in such sectors. For example, Uruguay harnessed the power of IT services to create a traceability system to promote health and food safety standards in its traditionally dominant cattle industry in the early 2000s. This digital innovation has not just helped it expand its cattle exports to new markets which have stringent standards, but also created a new export market for Uruguay's advanced IT services designed for the livestock industry in other countries. It was estimated that for every US dollar invested in innovation generated USD 20 of profit for the operations in Uruguay's cattle industry. Similarly, Odisha can learn from Chile's experience of diversifying its mining industry by providing high-tech engineering and scientific research services to mining companies. The successful venture also went on to become a major source of export income for Chile.

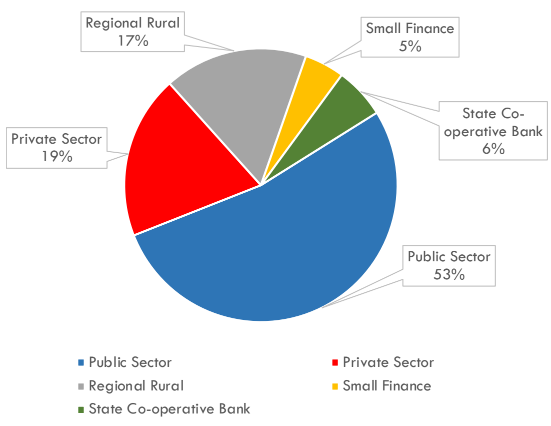
5.2 Financial Services

5.2.1 Financial services act as accelerators for economic growth by providing opportunities for investment and risk management, apart from providing liquidity to the firms operating within the State. The economic growth of a State is dependent on an effective financial sector that aggregates savings as well as mobilizes capital for productive investments. In Odisha, financial services account for 2.9 per cent of the state's GSVA and this sector is estimated to grow at 2.3 per cent (2023-24 AE), over the previous year.

I. Banking network in the State

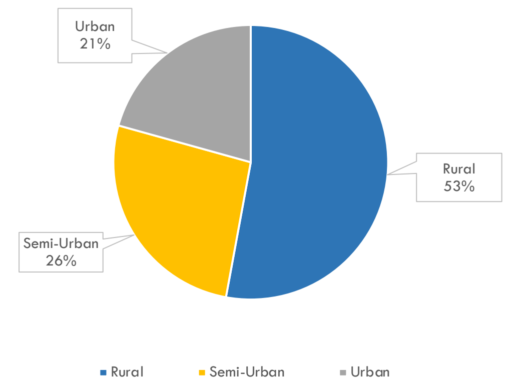
5.2.2 There are 12 public sector banks, 19 private sector banks, 2 regional rural banks, 5 small finance banks, and one state cooperative bank operating in Odisha with 5,774 branches in total as of 2022-23. If scaled by population, the number of branches in the State is 13 per lakh population. Public sector bank branches constitute 53 per cent of total branches in the State, followed by 19 per cent of private banks (Figure 5.6). During 2022–23, 167 new branches of different banks were opened in the State, as compared to 59 in the previous year. However, 4,373 Gram Panchayats in the State are yet to have an operational Brick & Mortar (B&M) branch.

Figure 5.6 | Branch Distribution in the State (by Bank Type) – 2022-23



Source: SLBC Report (171st Meeting)

Figure 5.7 | Branch wise Distribution (by Geography) – 2022-23

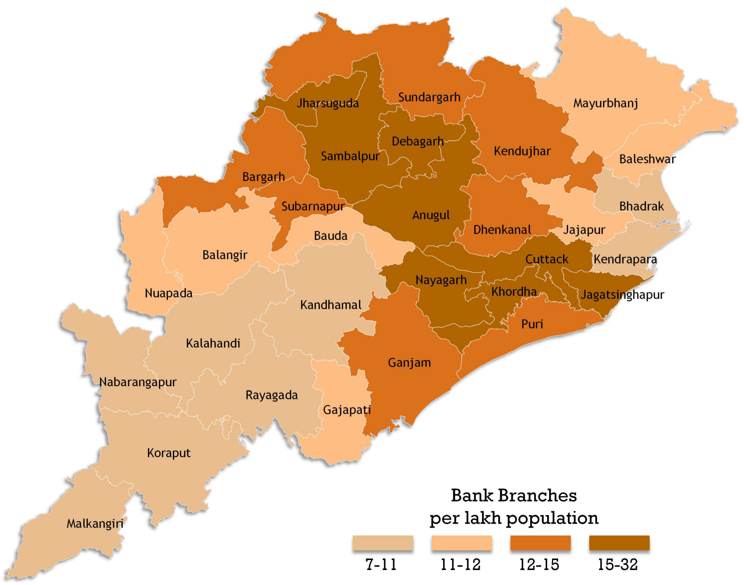


Source: SLBC Report (171st Meeting)

5.2.3 As far as the distribution of bank branches is concerned, 53 per cent of bank branches are operating in rural areas, while the other 47 per cent of bank branches serve in urban and semi-urban areas. This resulted in an average rural branch serving around 12,229 people, while an average urban (including semi-urban) branch catering to 3,203 people.

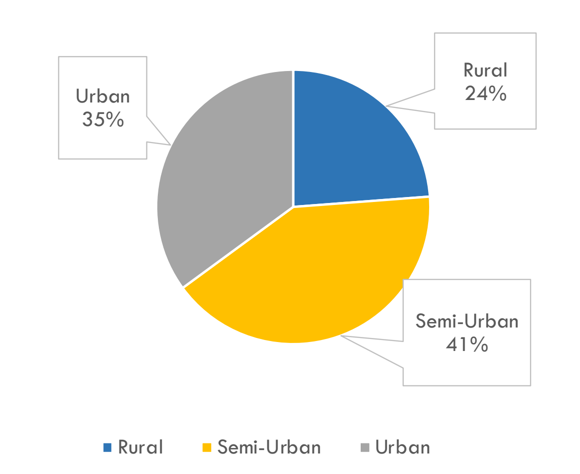
5.2.4 There are geographical differences too in distribution of branches across Odisha. Figure 5.8 shows that industrially forward districts of north-west and coastal districts of Khorda, Cuttack, Jagatsinghpur etc. have better branch penetration as compared to the southern districts of Malkangiri, Koraput, Nabrangpur, Kalahandi.

Figure 5.8 | District wise spread of bank branches/lakh population (2023) *



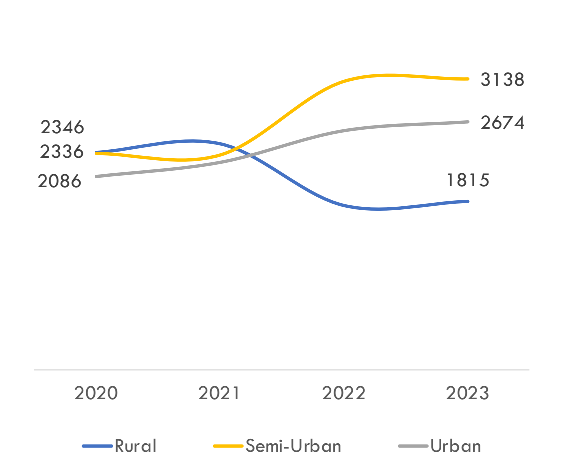
*Source: SLBC Reports (171st Meetings | *District population as per census (2011)*

Figure 5.9 | Bank ATM Distribution in the state by Geography - 2023



Source: SLBC Reports (171, 167, 163, and 159th Meetings)

Figure 5.10 | Bank ATM Installations over the years



Source: SLBC Reports (171, 167, 163, and 159th Meetings)

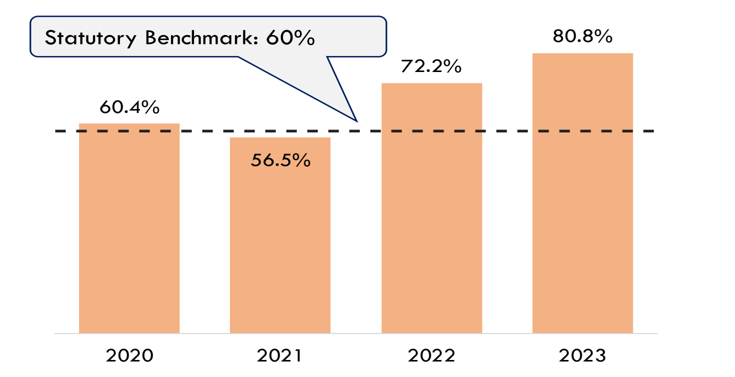
ii. Bank deposits, advances and credit – deposit ratio

5.2.5 Growth in bank deposits and advances is an indication of a robust financial sector. While the growth in deposits indicate surplus income with the populace and facilities channelizing funds to productive investments and meeting the working capital demands of firms and businesses.

5.2.6 Total deposits of all banks in Odisha grew from INR 3.5 lakh crore in 2019-20 to INR 4.6 lakh crore in 2022-23, at a CAGR of 9.7 per cent. On the other hand, advances utilized by the State across all banks in Odisha grew from INR 2.1 lakh crore in 2019-20 to INR 3.7 lakh crore in 2022-23, at a CAGR of 20.8 per cent, indicating higher demand for credit in the economy.

5.2.7 Odisha's priority sector advances[1] in 2022-23 is 54.6 per cent of total advances, which is above the minimum benchmark rate of 40 per cent, as mandated by Reserve Bank of India (RBI). This indicates the compliance of banks with priority sector lending norms as well as demand across these sectors.

Figure 5.11 | CD Ratio* of all banks in Odisha



**Based on total utilization (including loan sanctioned outside State) of credit in the State*
Source: SLBC Reports (171, 167, 163, and 159th Meetings)

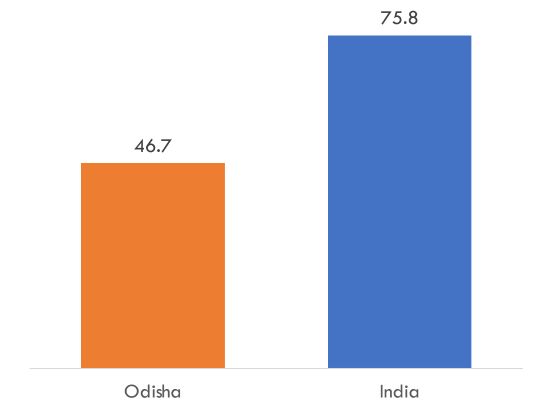
5.2.8 Credit-Deposit (C-D) ratio is another important indicator for measuring the financial health of banking institutions. It represents the proportion of loans created by banks from deposits they receive. A lower CD ratio for financial institutions (or a sector as whole) indicates the diminishing demand for credit that can be provided through deposits, and similarly, a high ratio indicates that banks are disbursing more credit from their deposits. In Odisha, the CD ratio (including advances sanctioned in other states and utilized in Odisha) for March

[1] Major priority sectors include agriculture, MSME, weaker sections, minority communities, advances to women, and housing.

2023 was 80.8 per cent. As shown in Figure 5.11 an overall higher CD ratio in Odisha is reflecting a strong demand for credit in the state in an environment of relatively slower deposit growth.

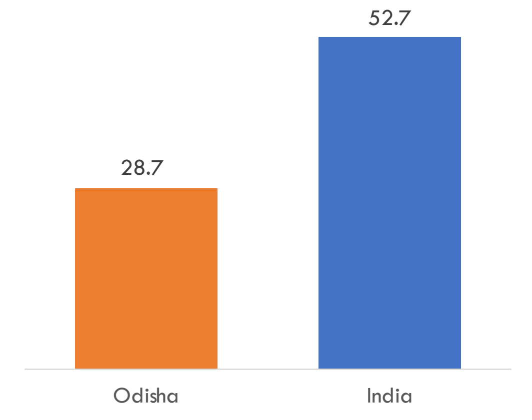
5.2.9 However, the CD ratio of Odisha for all scheduled commercial banks is 46.7 per cent as on March 2023. This is lower as compared to the All-India average of 75.8 per cent in the same year (Figure 5.12). Similarly, the credit to GSDP ratio for all scheduled commercial banks in the State is 28.7 per cent as compared to 52.7 per cent at All-India level (Figure 5.13).

Figure 5.12 | Credit to Deposit Ratio (as on March 2023 (in %)) - Scheduled Commercial Banks



Source: Reserve Bank of India and MoSPI, Government of India

Figure 5.13 | Credit to G(S)DP Ratio (as on March 2023 (in %)) - Scheduled Commercial Banks



Source: Reserve Bank of India and MoSPI, Government of India

iii. Initiatives for enhancing Financial Inclusion

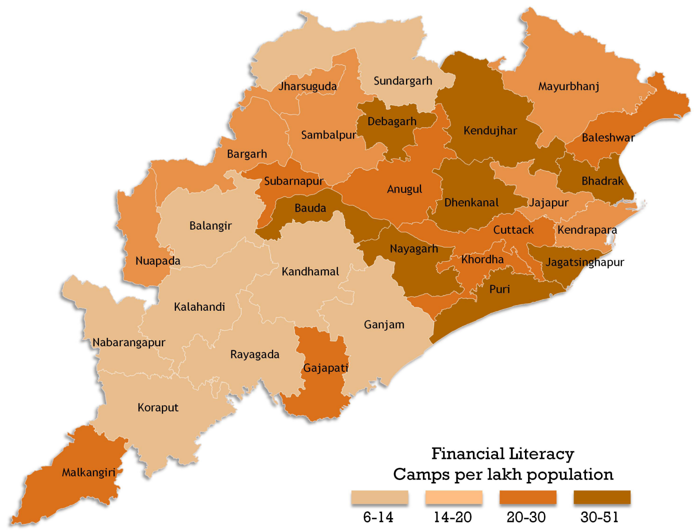
5.2.10 The essence of financial inclusion is to ensure delivery of financial services, which includes bank accounts for savings and transaction purposes, affordable credit for productive, personal, and other purposes, relevant financial advisory services, insurance facilities (life and non-life), etc. Financial inclusion broadens the resource base of the financial system by developing a culture of savings among a large segment of rural population and plays its own important role in the process of economic development. Further, by bringing low-income groups within the ambit of formal banking sector, financial inclusion protects their financial wealth and other resources in exigent/demanding circumstances, in addition to providing different financial services. This section details some of the actions targeted towards increasing access to financial services and ensuring financial inclusion of the State.

5.2.11 **Operation of Business Correspondents (BCs)** promotes financial inclusion through penetration of banking services in rural areas and provides sustainable banking services in unbanked areas of the State. There has been an increase in the BC network for complementing the traditional banking infrastructure in the State. This can be attributed from the fact that BCs almost tripled from 17,127 outlets in 2022 to 48,923 outlets in 2023.

5.2.12 In Odisha, Targeted Financial Inclusion Intervention Programme (TFIIP) is implemented in all ten aspirational districts viz. Dhenkanal, Gajapati, Kalahandi, Baragarh, Kandhamal, Rayagada, Koraput, Malkangiri, Nabarangpur, and Nuapada. As of 2022-23, the number of enrolments per one lakh population was 11,289 under the Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), 28,155 under the Pradhan Mantri Suraksha Bima Yojana (PMSBY), and 4,168 under the Atal Pension Yojana.

5.2.13 **Improving Financial Infrastructure through Jan Dhan Darshak GIS Application:** According to the Jan Dhan Darshak GIS web service, Odisha has 62 unbanked villages as of 2022-23. The State Level Bankers' Committee (SLBC), after consulting with the Lead District Managers (LDMs), has assigned these 62 unbanked villages to banks to provide banking services within a 5-kilometer radius of each village. According to latest reports, of these 62 villages, BC points have been opened/are already been made available in 28 villages.

Figure 5.14 | Financial Literacy Camps per Lakh population



*Source: SLBC Reports (171st Meetings) | *District population as per census (2011)*

5.2.14 **Financial Literacy Camps:** During 2022-23, a total of 9,078 financial literary camps were organized through 3,054 branches for providing training on knowledge about financial inclusion. A district-wise coverage for financial literacy camps catering to per lakh population (Figure 5.14) outlines that districts from northern Odisha have had more penetration and frequency of financial camps as compared to the districts from the western & southern Odisha.

5.3 IT/ITES

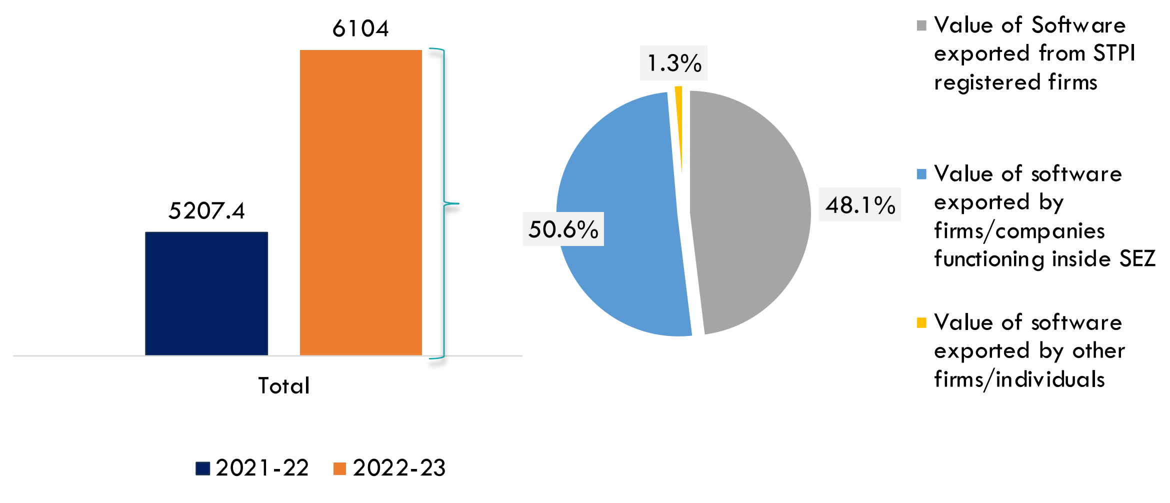
5.3.1 The IT sector is a high value segment consisting of Information Technology services and business process outsourcing (BPO). Odisha's IT sector holds promise with Bhubaneswar set to become a preferred IT outsourcing destination while simultaneously generating employment opportunities in the State. Bhubaneswar, the capital city of the State is one of the top emerging cities to advance and evolve as a reliable source of highly skilled and proficient talent in the technology industry. As per All – India Survey of Higher Education (AISHE), 2022, Bhubaneswar produces 21 Science and Technology graduates among 100 graduate students and is positioned third among emerging cities after Coimbatore (37) and Bhopal (28). In terms of Management graduates, Bhubaneswar is right on top of the list with Lucknow, producing approximately 10 students per 100 graduates in 2022.

5.3.2 Odisha's IT journey began with establishment of the Software Technology Park (STPI) in Bhubaneshwar, which was one of the first 3 STPIs, along with Pune and Bangalore, to be set-up in India. Today, there are over 63 STPIs in India[2]. Due to this first mover advantage, Bhubaneshwar can emerge as a leading IT cluster in eastern India, having more than 96 units registered with the STPI. Subsequently, STPI Bhubaneshwar also expanded its geographical footprint by setting up sub-centers in nearby cities of Rourkela in 2001 and Berhampur in 2010.

5.3.3 As far as total exports of software services from Odisha are concerned, the State experienced a year – on – year growth of 17 per cent between 2021-22 and 2022-23. As per Directorate of Export Promotion & Marketing, Odisha, the State exported software worth INR 6,104 crore in 2022-23, 48 per cent of which came from STPI registered firms, 51 per cent from firms/companies functioning inside SEZ, and 1 per cent from other firms/individuals. The same is shown in Figure 5.15.

[2]https://stpi.in/en/about-stpi#:~:text=Today%2C%20STPI%20has%2063%20centres,startups%20to%20develop%20software%20products

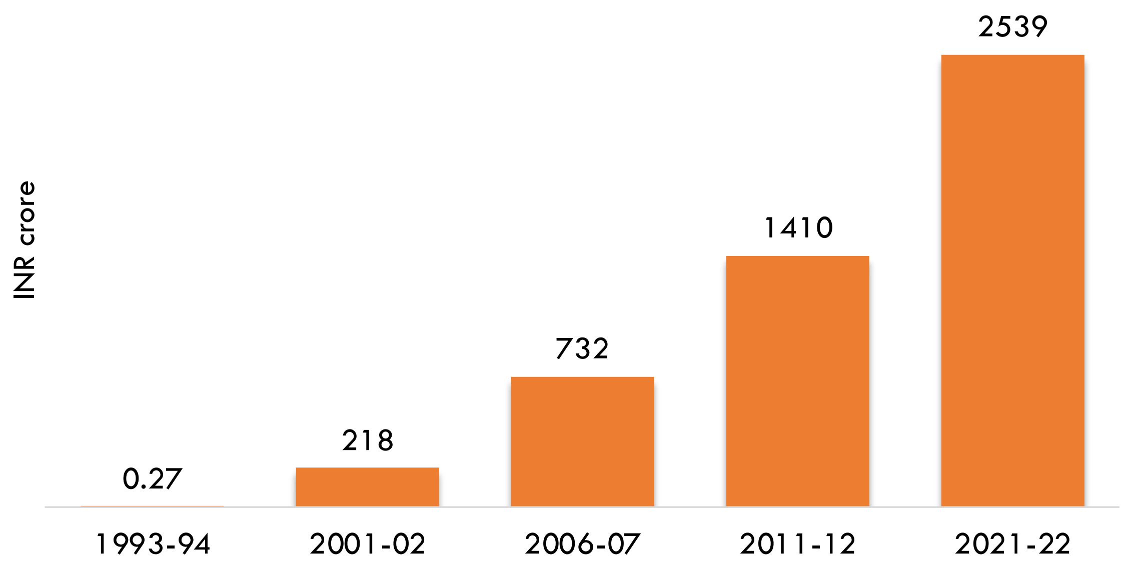
Figure 5.15 | Total Value of Software Exports from Odisha (INR crore)



Source: Electronics & Information Technology Department, Government of Odisha

STPIs have helped catapult exports of computer software and professional communication services from Odisha to the rest of the world. Exports from registered units under STPI-Bhubaneswar has increased 11X, from INR 0.3 crore in 1993-94 to INR 2,539 crore in 2021-22 (Figure 5.16).

Figure 5.16 | IT/Software Exports from Odisha's STPIs have grown by 11 times in the last 2 decades (INR crore)



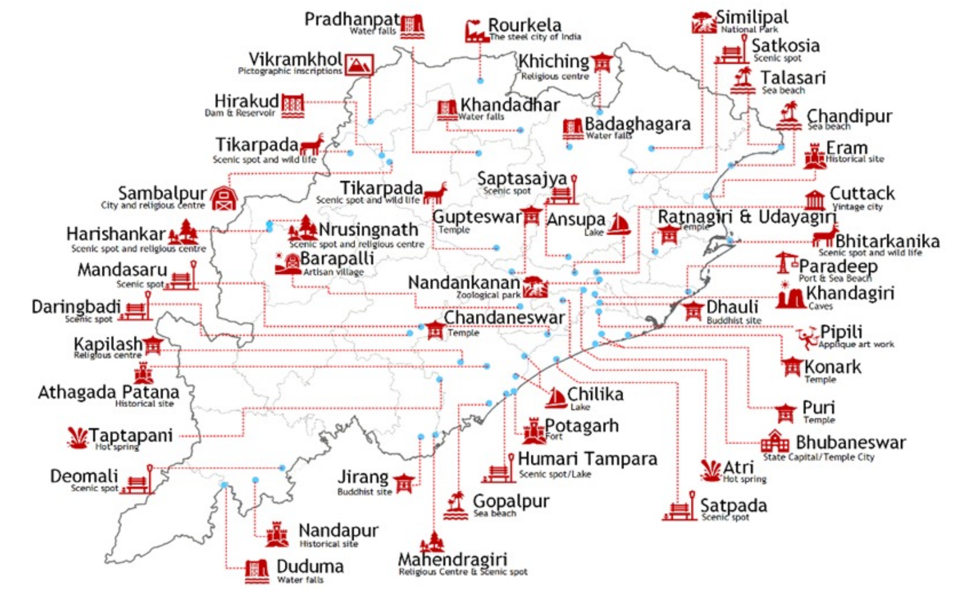
Source: Electronics & Information Technology Department, Government of Odisha

5.4 Tourism

5.4.1 The tourism industry generates significant economic benefits in terms of employment as well as Gross Domestic Product (GDP)[3]. While World Economic Forum places India at the 54th rank in its Travel and Tourism Development Index 2021, it acknowledges India as a top performer in South Asia.

5.4.2 Tourism is one of the main contributors in Odisha, with a 480 km (298 mi) long coastline, mountains, lakes, forests, waterfalls, and rivers. As per Odisha Tourism Policy 2022, tourism constitutes 13 per cent of the State GDP. The sector is accorded as a 'Focus Sector'. Major tourist locations in Odisha are mapped in Figure 5.17.

Figure 5.17 | Tourism Map of Odisha



Source: Compiled by Directorate of Economics & Statistics, Government of Odisha

I. Growth in Tourism sector

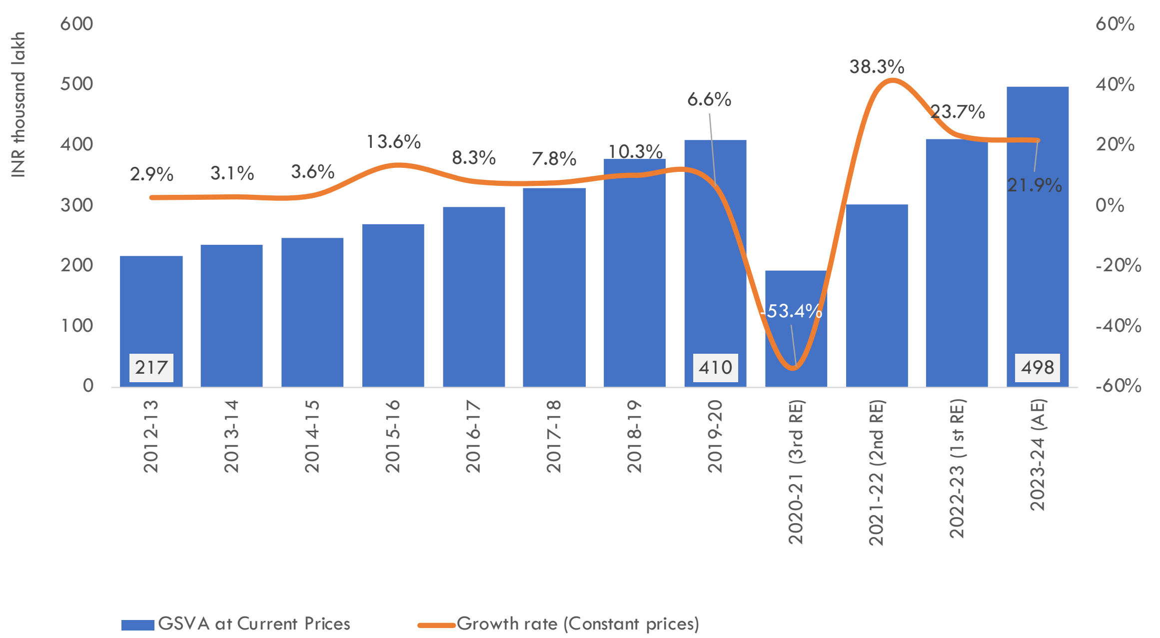
5.4.3 Tourism and hospitality industries are interlinked. Customers of travel and tourism sector need facilities like accommodation, food and beverages etc. and these facilities are provided by restaurants, hotels and resorts, that comes under the hospitality industry.

5.4.4 The 'hotels and restaurant' sub-sector in Odisha experienced a growth rate of 21.9 per cent in 2023-24 (AE). As shown in Figure 5.18, the hotel and restaurant sector experienced a rebound since 2021-22 (2nd RE), following the pandemic shock, which affected the sector owing to its contact intensiveness. However, the average 5 year' growth of hotel and restaurant sub-sector in Odisha declined from 8.7 per cent between 2014-15 & 2018-19 to 7.4 per cent between 2019-20 and 2023-24 (AE).

---

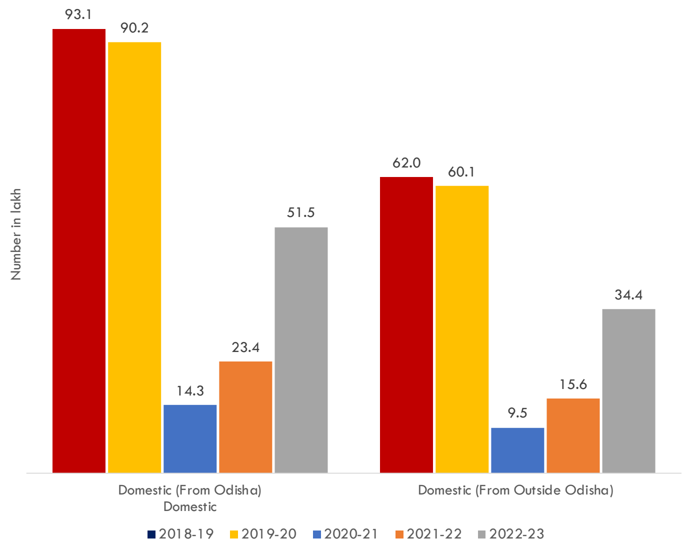
[3]As per the World Travel and Tourism Council, globally, in 2019-20, travel & tourism sector (including direct, indirect and induced impacts) accounted for 1 in 4 new jobs created around the world, and nearly 10.3 per cent of global GDP (USD 9.6 trillion).

Figure 5.18 | GSVA and Growth rate of 'hotels and restaurants' sub-sector



Source: Department of Tourism, Government of Odisha

Figure 5.19 | Number of domestic and foreign tourists



Source: Department of Tourism, Government of Odisha

5.4.5 During 2022-23, the total tourist footfall in Odisha, both domestic and international, was recorded around 86.2 lakh. Out of this, 85.9 lakh tourists were domestic in nature, either from within or outside the State. As far as the domestic tourist footfalls in Odisha is concerned, roughly 60 per cent of tourists arrived from within the State and the other 40 per cent arrived from outside Odisha. International tourist arrivals in 2022-23 was recorded as 40 thousand.

5.4.6 However, the sector is yet to recover from the pandemic shocks with number of tourist footfalls, both domestic and international, yet to reach its pre-pandemic levels. As evident from Figure 5.19, 150.4 lakh domestic tourists and 1 lakh foreign tourists visited the State in 2019-20, which is higher than the tourism footfall figures in 2022-23.

5.4.7 Some of the recent initiatives of promoting tourism activities in the State are as follows:

ADVENTURE TOURISM
- Water based sports activities promotion in Silver City Boat Club, Cuttack & in Hirakud Dam, Burla

CRUISES & HOUSEBOATS
- operational in Bhitarkanika National Park, included in masterplans of Chilika and Hirakud

YACHT TOURISM
- Towards promoting luxury tourism, locations suitable for Yacht operations are already being identified

CAMPING TOURISM
- Government identified economical and tented accommodation spaces for remote tourist sites

BLUE FLAG BEACH
- Golden Beach in Puri received Blue Flag Certification by the Foundation for Environmental Education, Denmark in 2024

TALADANDA CANAL FRONT DEVELOPMENT
- leisure and recreation with Byanjana Food Court and Watersports Zone, Cuttack

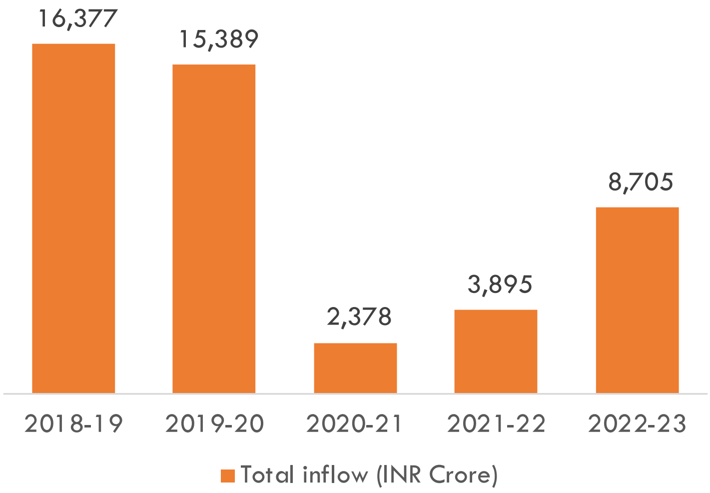
CARAVAN TOURISM
- Post the success of 'Odisha By Road' campaign during COVID-19, Odisha is promoting Caravan tourism in remote nature and tourist destinations

BEACH SHACKS
- developed at 5 beaches in Odisha – Sonapur, Talsari, Chandipur, Gopalpur and Paradeep

NIMANTRAN
- serving authentic Odia cuisine through a chain of restaurants in different parts of Odisha

II. Tourists' Spending

Figure 5.20 | Inflow of money via. Tourist spending (INR crore)



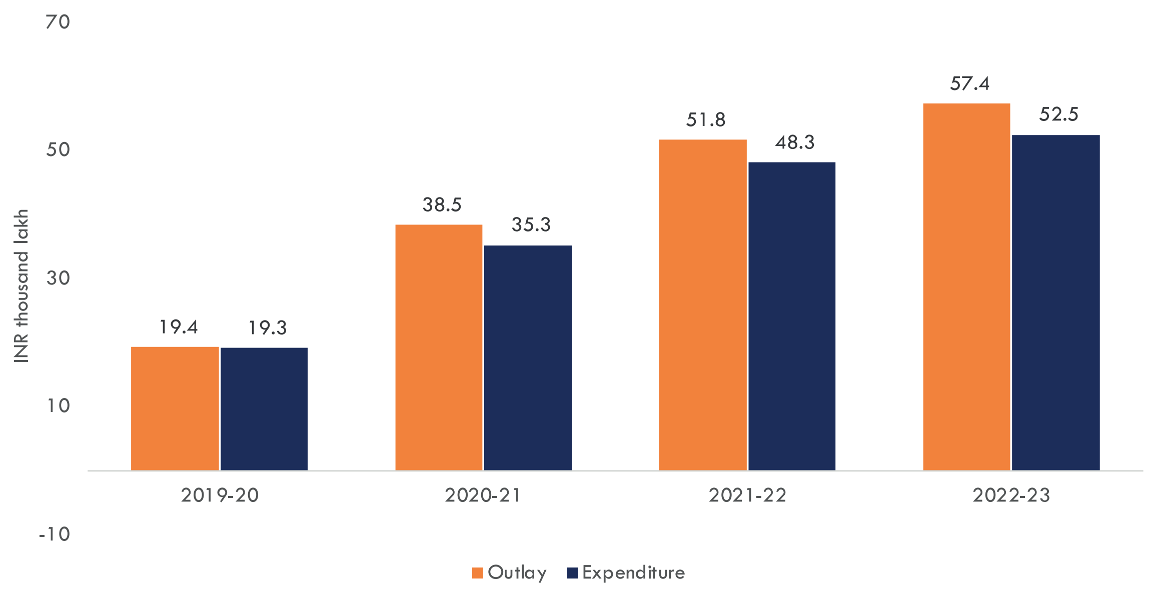
Source: Department of Tourism, Government of Odisha

5.4.8 The inflow of money through tourists' expenditure for the years 2018-19 to 2022-23 is shown in Figure 5.20. The inflow of money via tourists' spending in Odisha was INR 16.3 thousand crore in 2019-20, which declined to INR 2.4 thousand crore during the pandemic period. However, during the last two years, inflow of money via. tourist spending increased by 1.6X and 2.2X respectively. Odisha received INR 3.9 thousand lakh worth tourist spending in 2021-22 and INR 8.7 thousand lakh worth tourist spending in 2022-23.

III. Outlay, Expenditure & Tourism Infrastructure Development

5.4.9 One of the major reasons behind increased tourism footfall and tourist spending may be attributed to an increase in capital investment in tourism infrastructure of the State. Figure 5.21 represents the budget expenditure of tourism department which shows increasing trend in the last four financial years since 2019-20. Capital outlay in tourism sector in Odisha increased from INR 194 crore in 2019-20 to INR 574 crore, an increase of almost 3 times. It is worthy to note that expenditure in tourism sector exceeded more than 90 per cent of the budget outlay in tourism, indicating spending intensions in the tourism sector.

Figure 5.21 Outlay & expenditure of Tourism sector (INR thousand lakh)

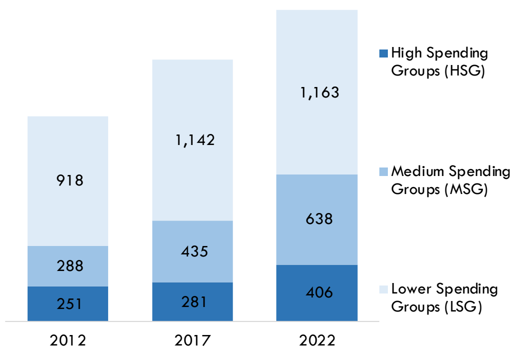


Source: Department of Tourism, Government of Odisha

IV. Hotel Industry in the State

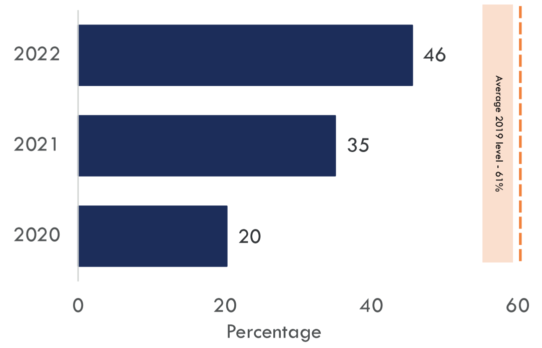
5.4.10 Hotels and restaurants are one of the fastest-growing sub-sectors in services sector and it is regarded as a key part in development of State tourism. Over the last decade, number of hotels in Odisha increased sharply, reaching a figure of 2,207 at the end of CY2022. As evident from Figure 5.22, hotels catering to High Spending Groups (HSGs) and Medium Spending Groups (MSPs) increased by 1.6 times and 2.2 times respectively, between 2012 and 2022. This indicates an increase in spending of State tourists visiting Odisha over the last decade. As a result, to this, Odisha now possess a total of 46,450 hotel rooms across categories and 93,825 beds, as of 2022. However, it is important to note that the average percentage of hotel occupancy in Odisha is yet to reach the pre-pandemic level (2019) of 61 per cent (Figure 5.23).

Figure 5.22 Number of Hotels in Odisha by tariff category



Source: Department of Tourism, Government of Odisha

Figure 5.23 Average Percentage of Hotel Occupancy - Odisha



Source: Statistical Bulletin 2022, Department of Tourism, Government of Odisha

V. Sports Tourism

5.4.11 Sports tourism is one of the fastest-growing sectors in tourism. The State hosted multiple successful events of international grandeur, attracting sports loving tourists from across the State, country and world.

> **Odisha has established itself as a global hub of hockey having successfully organized consecutive editions of FIH Hockey World Cup in 2018 and 2023.**

5.4.12 In 2022-23, Odisha was the venue for prominent hockey events like the FIH Hockey Junior Men's World Cup, Pro League, FIH Olympic Qualifiers, and FIH Series Finals. Kalinga Hockey Stadium and Birsa Munda Hockey Stadium are regarded as top hockey stadiums in the world. The State also hosted noteworthy international events in other sports. In football, the State organized the FIFA U17 Women's World Cup and the SAFF U20 Championship, providing talented young footballers from around the world with a platform to showcase their skills. Odisha Open, Commonwealth Table Tennis Championships and a plethora of national events across sports have redefined Odisha as a Sports Hub in India. Kalinga Stadium in Bhubaneswar, the State's capital, serves as the home ground for Odisha FC, the reigning Super Cup Champions and Odisha Juggernauts, the State's franchise in the Ultimate Kho Kho League.

5.4.13 Rourkela City Festival was organized by Department of Tourism at Melan Ground, Rourkela from 14th to 22nd January 2023 during the FIH Men's Hockey World Cup in January 2023 to spread the Hockey fervor in and around the city of Rourkela. The multicultural and multi-disciplinary festival included zones such as amusement zone, night bazaar, food zone, storytelling, sports zone and concert area for celebrity events.

Box 5.2: Potential of services sector in employment generation

Medical Value Travel in India has gained significant recognition, propelling the country to the 10th position in the Medical Tourism Index 2020-21. Across the world, developing countries are emerging as popular medical tourism hubs as they have developed the capacity to offer high quality medical treatments at a lower cost as compared to developed countries. Ancillary service providers such as insurance companies and medical travel agencies are also providing coverage packages to help facilitate foreign travel for medical treatments. Beyond its rich cultural heritage, India is now capturing global attention for its state-of-the-art medical advancements. Odisha offers unique attractions that may help increase its popularity as a Medical Tourism destination. Some of the highlights are reflected below:

- **Holistic Healing Amidst Nature:** Odisha's breath-taking landscapes, ranging from sunlit coastlines to serene hill stations and riverside retreats, serve as an ideal setting for holistic healing. Medical Value Travelers can seamlessly integrate their treatment with rejuvenating experiences, including access to nutritious cuisine, spa services, yoga sessions, detox therapies, naturopathy, etc.

- **Government Support:** Recognizing the potential of Medical Value Travel to boost the state's tourism sector, the Odisha government has demonstrated its commitment through the recently launched Tourism Policy 2022. This policy underscores the state's dedication to positioning Odisha as a premier hub for health and wellness tourism.

- **Incentives for Investors:** The Government's proactive approach extends to incentivizing the establishment of wellness resorts. These resorts, which focus on promoting healing, AYUSH (Ayurveda, Yoga & Naturopathy, Unani, Siddha, and Homeopathy), yoga, meditation, panch-karma, and other holistic practices, are eligible for incentives. To qualify, resorts must meet specific criteria, including prescribed accommodation units (15), NABH accreditation, and a skilled workforce with requisite certification.
- **Integrated Developments:** In a strategic effort to boost medical tourism, the Government is actively promoting integrated developments that combine hotels and hospitals in urban areas. Hospitals affiliated with these developments are now linked to 3-star or higher category hotels, wherein there are mandated dormitory facilities for a minimum of 30 patients' attendants, ensuring a supportive and comfortable environment for international patients.
- **Attractive Incentives:** Tourism projects in Odisha enjoy a comprehensive set of incentives aimed at fostering growth and development. These include facilitated land allotment through IDCO, with urban areas following auction procedures, and additional charges for infrastructure development. Capital investment subsidies range from 30 per cent for investments up to INR 50 crore to 30 per cent for tented accommodation, with additional incentives for specific projects and those owned by women, SC/ST categories, and the differently-abled.

VI. Eco-retreat

5.4.14 Eco Retreat initiative has emerged as a brand towards promoting tourism in the State. Tourists stay in temporary tented luxury cottages deployed in the midst of nature at various pristine locations under this initiative. Some of the key features of the initiative are as follows:

Figure 5.24 | Key Features and Highlights - Eco-Retreat Odisha

Unveiling new and unique destinations
by providing temporary but high-quality facilities and services, especially when private sector interest for investments in those locations are yet to materialize

Promotion of ecologically sensitive destinations
For tourism purposes by promoting sustainable tourism practices premised on temporary infrastructure, seasonal operations, eco-friendly practices, and local community involvement

Zero Waste norms and environment friendly practices
The project is based on environment friendly practices like waste segregation and sorting, onsite composting, recycling waste, food donations of excess food, awareness building of kitchen crew and staff

Attracting Private Sector Investment
Eco-retreat has successfully elevated the tourism profile of Odisha globally and attracted more private sector investments around destinations

Evolving tourism product and brand
Eco-retreat has created a path-breaking nature towards promoting high quality and sustainable tourism practice across the State.

Source: Department of Tourism, Government of Odisha

5.4.15 For the year 2022-23, Eco Retreat at 7 locations viz., Ramchandi (Konark), Satkosia, Hirakud, Daringbadi, Putsil, Sonapur and Pentha (Bhitarkanika) were organized and run for a period of 3 months. Some of the major carnivals of the State, such as Konark festival and International Sand Art Festival would eventually be tagged with the Eco-Retreat initiative to make the celebrations more vibrant and widespread across the country and beyond. Some of the picturesque snapshots from Eco-Retreat 2022 is given below in the form of a collage:

5.5 Conclusion

5.5.1 Odisha's service sector growth, which was relatively volatile over the last decade, is estimated to grow at 9.2 per cent in 2023-24 (AE). Broad-based recovery has been observed in recent years with pick up in almost all services sub-sectors, especially contact intensive sectors, which bore the maximum brunt of the pandemic. Prospects look bright with scopes of improvement in various sub-sectors like tourism, hotels, restaurants, IT-BPM, financial services etc.

5.5.2 Financial services play the role of a catalyst in growth of an economy through provision of avenues for investment and risk management. It also plays an important role in the overall development of the grass-root level in the State. For an inclusive development of the economy, it is essential that credit flows is directed towards high development impact sectors.

5.5.3 Odisha's IT sector holds promise with Bhubaneswar set to become a preferred IT outsourcing destination while simultaneously generating employment opportunities in the State. With a focused attention on improving the quality of IT education towards meeting industry demands and nurturing a sizable pool of relevant graduates, Bhubaneswar has the potential to produce future-ready workforce for the IT/ITeS sector.

5.5.4 Tourism has significant potential to boost Odisha's services sector in the near future. Envisioning promotion of eco-retreat destinations and nature camps with involvement of local communities is likely to encourage tourists gradually moving from traditional means of travelling to 'Glamping' (glamorous camping). As the State is endowed with several pristine beaches, mountains, lakes, forest, waterfalls, sanctuaries, rich culture and heritage, these can be harnessed to take Odisha's tourism to the next level. Furthermore, promoting niche tourism attractions like Caravan tourism, adventure tourism, glamping, ecotourism, sports tourism etc. would help the State in establishing itself as a preferred tourism destination across varied income-groups. State also has the potential to be the hub for medical tourism in the eastern fringes of the country.

CHAPTER 6

INFRASTRUCTURE

ABSTRACT

Infrastructure is crucial for achieving overall growth and development. Odisha has prioritized development of both physical and digital infrastructure for enabling higher economic activities in the State. The State has spent more than INR 2.4 lakh crore in the last 10 years (2014-15 to 2023-24 BE) for infrastructure development. In 2023-24 (BE), capital outlay of the State stood at INR 51,683 crore, which is 6.2 per cent of GSDP and an increase of 34.9 per cent over the previous year.

Odisha has the 5th largest road network in the country with 1.3 lakh kms. The road density has increased from 166.2 kms in 2011 to 196 kms in 2019. But Odisha ranks 7th in road density in the country among 17 major states in 2019. Though surface road has increased in the State, there is need to improve quality of road in terms of expressway, national and state highways to enable better movement of traffic and reduce logistic costs. In 2022, there were 3.8 km of national highways per 100 sq. km, compared to all-India average of 4.3 km. The State has railway track length of 2,992 km as of 2022-23, out of which 98.3 per cent are electrified. The railway density in Odisha is still low at 17.5 km per '000 sq. km in 2022 against 20.7 km at all India level and 26.9 km for average of 17 major states. There is a need to increase railway infrastructure in the State to facilitate movement of freight and passengers.

The State has invested in building new airports, airstrips, and in redevelopment of existing airports to increase air connectivity in the State. The State has four domestic operational airports and one international airport. Another international airport is being developed in Puri. Additionally, the civil aviation sector saw growth in domestic flights, passengers, and revenue, with the launching of new international flights to Dubai, Singapore, and Bangkok in 2023. However, air passenger traffic per million population is still low at 86 thousand against all India level of 240 thousand passengers. There is need to further develop aviation sector in the State. Likewise, progress can be seen in the port infrastructure. Odisha has three operational ports while two non-major ports are under construction. Paradip port lacks in containerized cargo handling capacity, which was only 0.1 per cent in total containerized cargo handled by India in 2021-22. Increasing the share of containerized cargo handling at Paradip would lead to an increase in fisheries and other goods exports from Paradip port. Besides, two national waterways (NWs) are partially functioning out of six NWs in Odisha. Further, inland waterways need to be developed and made fully functional for increasing cargo transportation.

In the power sector, Odisha is a leader in power sector reforms in the country. As of 2022-23, power contracted capacity in Odisha stands at 8116.6 MW, increased by two-fold between 2015-16 and 2022-23. Odisha's per capita domestic power consumption is still lower (222.9 kWh) than all India average of 248.3 kWh in 2021-22. The transmission loss in the State has come down from 5 per cent in 2007-08 to 3.1 per cent in 2022-23.

Odisha's telecom subscriber increased from 270.8 lakh in March 2012 to 335.5 lakh in March 2023 growing at a CAGR of 2 per cent. Tele-density in the State increased from 60.2 per cent to 75.7 per cent during this period. However, the tele density level in Odisha is still lower than the national average of 84.5 per cent in March 2023. Wireless density in Odisha is also (74.8 per cent in March 2023) lower than national average of 82.5 per cent. Internet subscribers per 100 population in Odisha has increased by 2.6 times from 19.5 to 51, between 2016 and 2023. However, the State is behind all-India average of 63.5. There is need to improve telecommunication infrastructure in the State in order to drive digital economy including fintech and edtech across the State.

6.1 Overview

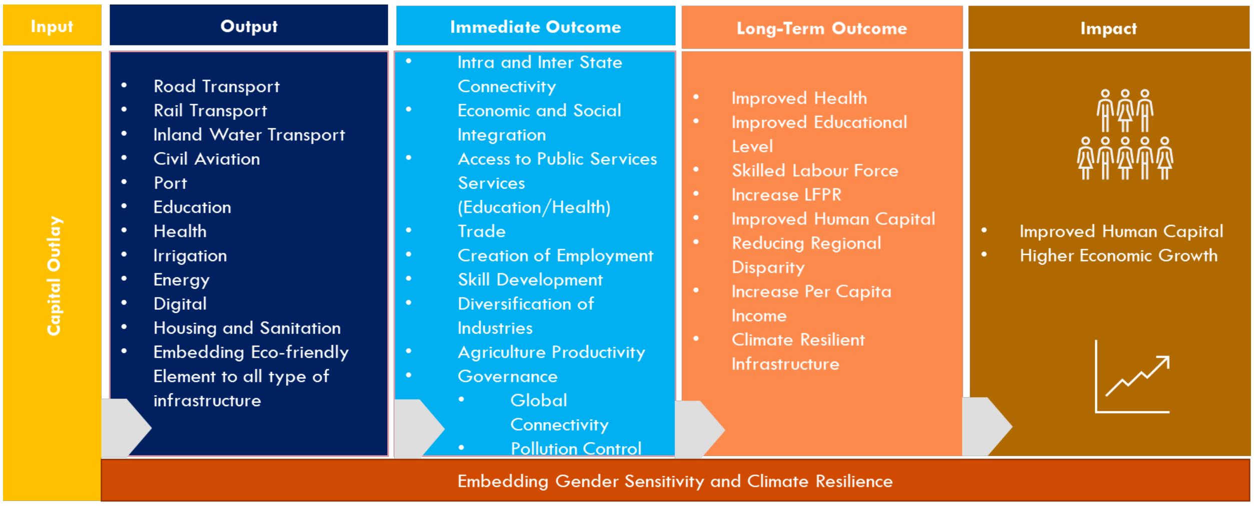
6.1.1 Infrastructure plays a key role in the economic development of the country. Quality infrastructure reduces logistic costs and improves competitiveness of the economy. Study shows investing in infrastructure creates multiplier impact throughout the economy. As per several research studies, the estimated multiplier size of infrastructure investment is between 2.5 and 3.5 in India. As per this estimate, infrastructure investment of one rupee leads to 2.5 – 3.5 rupees increase in Gross Domestic Product (GDP).

Infrastructure is essential input into the production of goods and services and raising the productivity. It powers factories and businesses and enables firms to trade. It encourages innovation and generates new economic opportunities and jobs as firms interact and discover new products, processes, and markets. Efficient infrastructure lowers distribution costs and boosts living standards by making goods and services more affordable. One of infrastructure's most important benefits is on the poor, allowing access to better health and educational services, improving living conditions, and fostering greater social and economic mobility. (Source: ADB)

6.1.2 Infrastructure like roads, ports, airports, railway, power etc., have been the key enablers of economic development. However, in recent years, digital infrastructure which is called "new infrastructure" is taking center stage in infrastructure space due to rise in Industry 4.0, precision farming and spread of emerging technologies such as Artificial Intelligence (AI) and Machine Learning (ML). Investment in digital infrastructure have increased in recent times with government of India focusing on digital economy and digital India. Digital technologies and platforms' have become increasingly important in addressing global challenges and responding to shocks, creating new jobs and markets, expanding access to finance, improving efficiency, transparency and eventually contributing to the overall growth. Studies show investment in digital economy significantly contributes to increasing employment and economic growth.

6.1.3 Infrastructure development is also critical for achieving inclusive development through investment in social infrastructure and expanding access to basic services. Its absence not only hinders economic growth but also creates barriers to social development. Figure 6.1 illustrates multidimensional impact of infrastructure through causal framework.

Figure 6.1 | Visualizing the multidimensional impacts of infrastructure



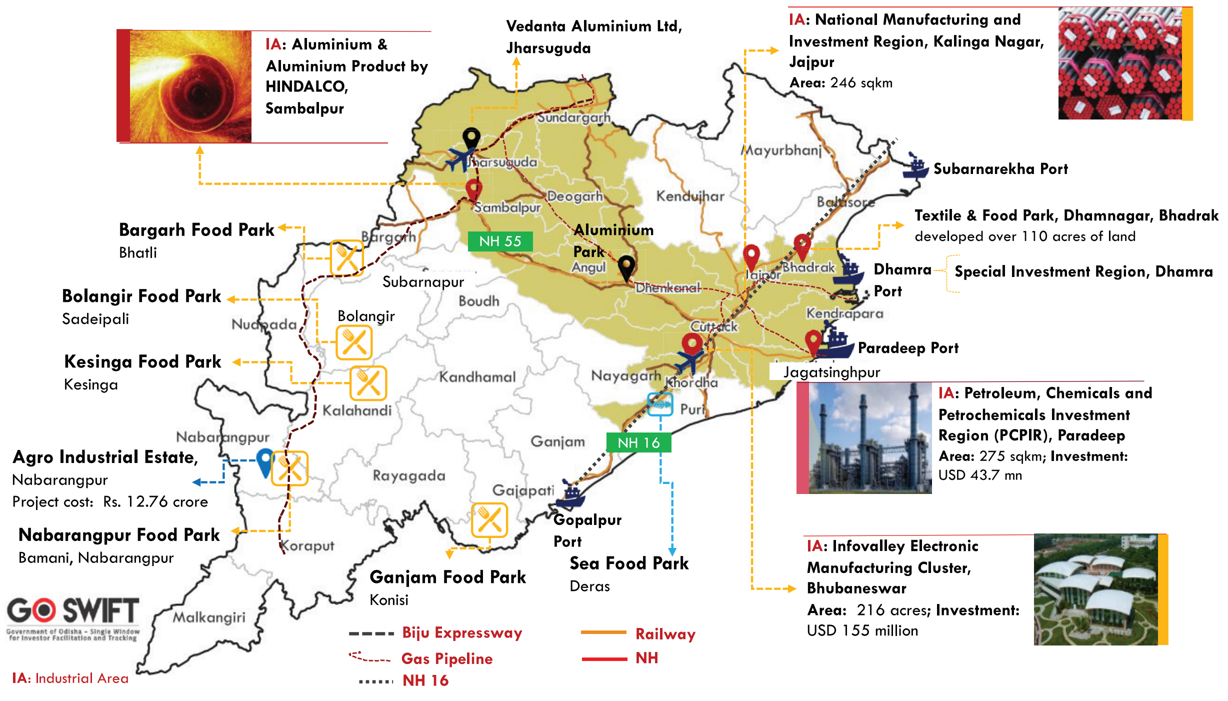
6.2 Infrastructure Development in Odisha

6.2.1 The State has adopted a five-point approach to strengthen the physical, digital, and social infrastructure that are: (i) relevant (ii) future-oriented, (iii) sustainability, (iv) cost-effectiveness, and (v) partnership-driven. The approach is aimed at meeting the current needs of the economy and overcoming binding constraints, and unlocking the full potential for widespread economic growth. Given Odisha's vulnerability to disasters, the State has given emphasis to development of climate-resilient infrastructure.

6.2.2 The State has spent more than INR 2.4 lakh crore in the last 10 years (2014-15 to 2023-24 BE) on infrastructure development. Out of INR 2.4 lakh crore, nearly 56.4 per cent is spent in two areas, i.e., transport and communications (33.8 per cent) and irrigation and flood control (22.6 per cent). Rest is mostly spent on energy (8.7 per cent) and water supply and sanitation (9.1 per cent). In 2023-24 (BE), the State's capital outlay stood at INR 51,683 crore, which is 6.2 per cent of GSDP and an increase of 34.9 per cent over the previous year's capital outlay (2022-23 RE).

6.2.3 The government of Odisha has taken several initiatives to create quality infrastructure to provide impetus to economic growth in the state. Some of the key initiatives (Figure 6.2), include the creation of Industrial Areas (IAs) with ready infrastructure to cater the specific requirements of industry and services sector, such as: an IT and IT-enabled service in Bhubaneswar, a stainless steel and downstream industries in Kalinga Nagar, and Aluminum IA in Sambalpur and Jharsuguda. Additionally, the government is creating an electronic hardware manufacturing cluster at Infovalley Bhubaneswar, a Petroleum, Chemical, and Petrochemical Investment Region (PCPIR) at Paradip, and a Special Investment Region (SIR) at Dhamra.

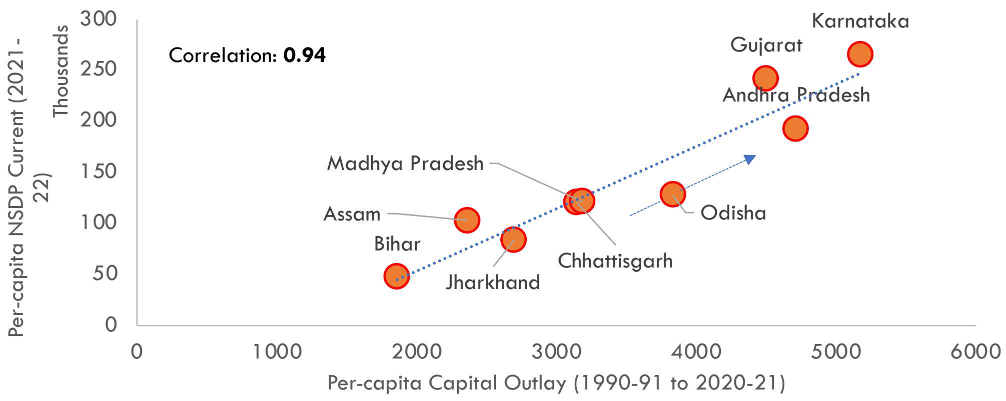
Figure 6.2 Snapshot of industrial infrastructure and clusters



Source: Investment Promotion and Industrial Corporation of Odisha Limited; Prepared by Directorate of Economics and Statistics, Government of Odisha

6.2.4 Over the years, states that have invested in infrastructure have achieved higher economic growth. Strengthening the infrastructure, such as transportation networks, logistics, energy systems, and social amenities, acts as a key accelerator for economic growth. Figure 6.3 indicates strong correlation between per capita capital outlay and per capita income among states in India.

Figure 6.3 | Per capita capital outlay and per capita NSDP (in INR)



Source: Prepared based on data from Handbook of Statistics on Indian States Reserve Bank of India

6.3 Physical Infrastructure

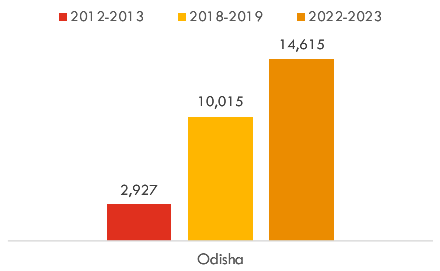
i. Road Connectivity

6.3.1 Odisha is the 8th largest state in terms of area, but it ranks 5th in having the largest road network in the country. Road Transport is one of the key drivers of economic activities. It is indispensable for marketing of agricultural products, establishment of industries and commercial activities and ensuring access to various services like health, and education. The significance of road transportation resonates in the State's increasing expenditure on road (Figure 6.4). Road expenditure has increased from INR 2,927 crore in 2012-13 to INR 14,615 crore in 2022-23, and currently, it ranks 4th among the states in terms of road expenditure.

6.3.2 Over the years, the State has made successive investments in road infrastructure, resulting in an increase in road network in the State. As of 2022-23, the State had a total road length of 1.3 lakh km. The road density has also increased from 166.2 km per 100 sq km in 2011 to 196 km per 100 sq km in 2019. But Odisha ranks 7th in road density in the country among major states in 2019. Though surface road has increased in the state, there is need to improve quality of road in terms of expressway, national and state highways.

6.3.3 As of 2023, the state has 5,753 km of national highways and 4,124 km of state highways. In 2019, the share of national highways in the total road length in the state was 1.9 per cent, and state highways made up 1.4 per cent. In 2022, there were 3.8 km of national highways per 100 sq. km, compared to the all-India average of 4.3 km. Between 2011-12 and 2022-23, the length

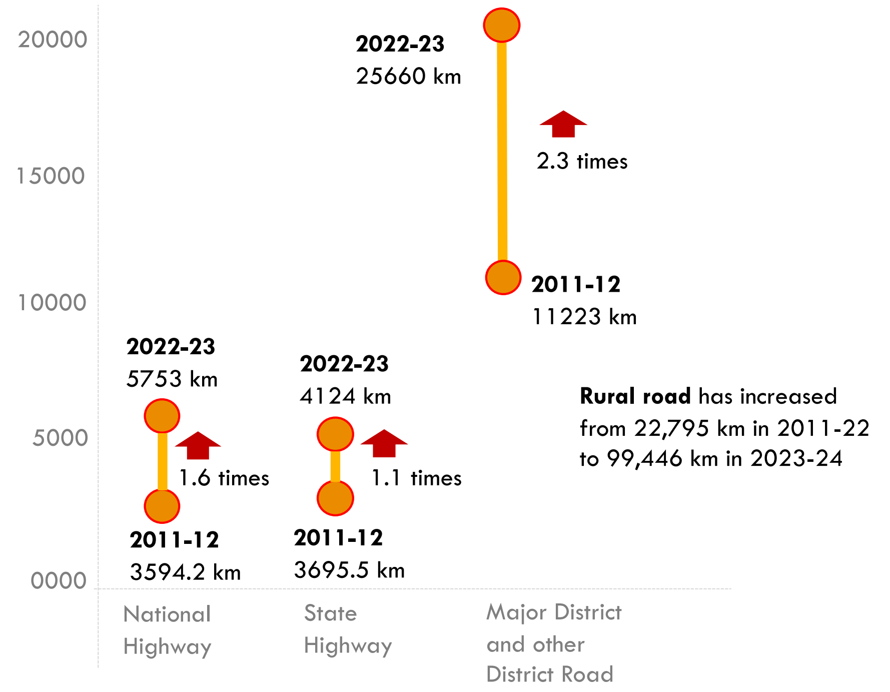
Figure 6.4 | Road and bridges expenditure (in INR Crores)



Source: Annual Budget Documents, Government of Odisha
**2022-23 is revised estimates. Figures include revenue expenditure and capital outlay.,*

of national highways increased by 1.2 times, while state highways increased by 1.1 times. Major districts and other district roads increased by 2.3 times during this period.

Figure 6.5 Improvement in road length in Odisha (2011-12 to 2022-23)



Source: C.E, NH, C.E R&B, P.R. Department, Government of Odisha

Public Transport

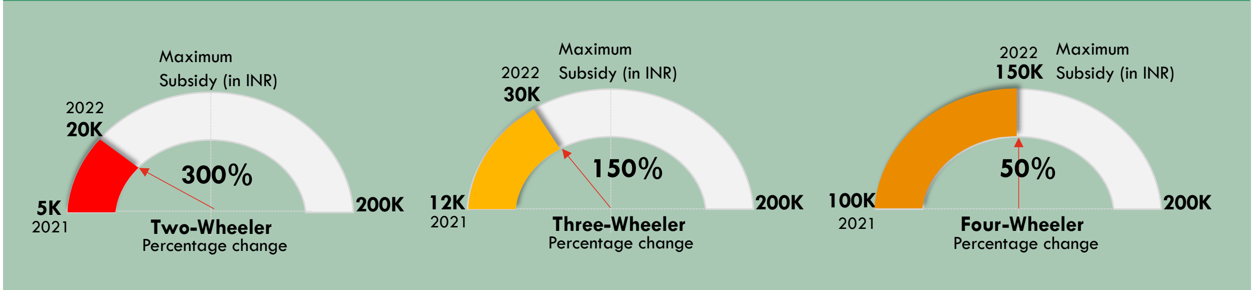
6.3.4 The Odisha State Road Transport Corporation (OSRTC), established under the Odisha State Road Transport Corporation Act (1950), commenced its services from 15 May 1974 aiming to provide transport services to people at an affordable price. In recent years, the State has embedded the IT infrastructure to make tickets online. People can book their bus tickets from the comfort of their homes or offices in advance without visiting a counter. Between 2021-22 to 2022-2023, OSRTC has increased its bus fleet by 200 per cent. The number of passengers using OSRTC buses jumped by 59 per cent in 2022-23 over 2021-22.

6.3.5 The State has established the 'Capital Region Urban Transport' (CRUT) to offer affordable and good-quality bus services in the capital region covering Bhubaneswar, Cuttack, and Puri. Since November 6, 2018, CRUT has been providing reliable and safe bus services. The adoption of smart technology, service level benchmarking, and focus on customer satisfaction have been central to CRUT's operations, which has helped to improve urban public transport system in Odisha's major cities. The CRUT has expanded operations to Rourkela and may soon start operations in other cities in the State.

6.3.6 The State has taken several steps to build truck terminals and Inland Containerized Depots (ICDs) in Odisha to tackle the issue of road accidents and fatalities caused by collisions with illegally parked vehicles on highways. The truck terminals will be established along national and state highways. These terminals will be developed on a PPP model, and will have modern amenities like warehouses, fuel stations, restaurants, weighing bridges, loading/unloading areas, dormitories, toilets, and more. This initiative will reduce road accidents and create alternative livelihoods and income opportunities in the identified locations.

Box Item 6.1: Incentives under Odisha EV policy

The State has amended EV Policy 2021 to provide higher incentive to buyers. The State has increased the incentive on the e-vehicle purchase under two, three and four-wheeler by 300 per cent, 150 per cent and 50 per cent. The state government set a goal of adopting 20 per cent electric vehicles by the end of 2025 to reduce vehicular pollution.

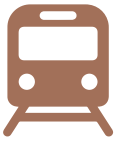


Source: Commerce & Transport Department, Government of Odisha

ii. Railways

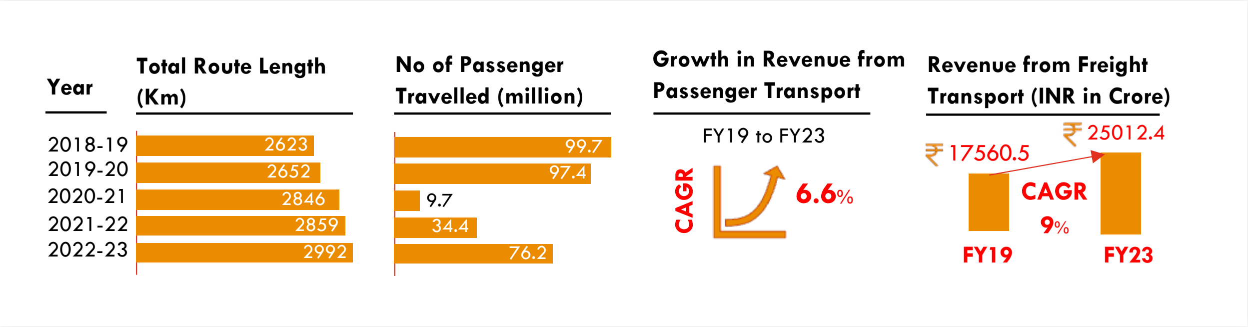
6.3.7 Odisha in cooperation with central government strive to develop railway infrastructure in the State including connecting all the districts. The State has constituted Odisha Rail Infrastructure Development Limited (ORIDL) as a Joint Venture company with Ministry of Railways for development of rail infrastructure in the State. The government of Odisha holds 51 per cent stake in the entity while Ministry of Railways owns the remaining 49 per cent stake.

6.3.8 Odisha is providing free land and sharing the cost for railway line construction in the State. Notably, the State has provided free land in stretches for Khurda Road to Bolangir railway route and between Jeypore and Nabarangpur and, also is sharing 50 per cent of the total construction costs for these projects. Additionally, the State has funded 25 per cent of the total project cost for the Jeypore to Malkangiri railway project. The Brahmapur to Sambalpur railway line is being developed by ORIDL. Further, redevelopment of the Bhubaneswar Railway station is being undertaken with world-class infrastructure and passenger amenities.



6.3.9 By the end of 2022-23, (Figure 6.6) the State had 2,992 km of railway route, out of which 2940 (98.3 per cent) have been electrified. The railway density in Odisha is still low at 17.5 km per '000 sq. km in 2022 against 20.7 km at all India level and 26.9 km for average of 17 major states. Except Boudh, Deogarh, Kandhamal, Malkanagiri and Nabarangapur districts 25 districts in the State are connected by rail network. There is a need to increase railway infrastructure in the State to facilitate movement of freight and passengers.

Figure 6.6 Railway route, passenger, revenue from passenger and freight, Odisha



Source: Odisha Rail Infrastructure Development Limited

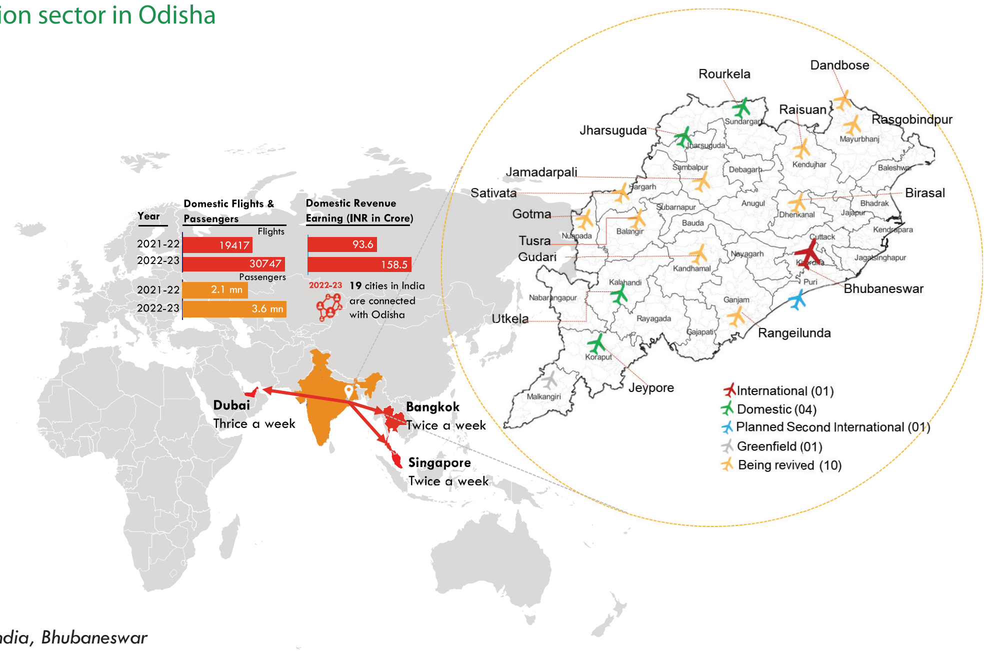
6.3.10 In 2022-23, passenger traffic from Odisha by railways has increased by more than 1.2 times over 2018-19. Passenger traffic of 76.2 million in 2022-23 is still below pre-covid level of 99.7 million passengers in 2018-19. Since 2018-19, passenger revenue has increased at a CAGR of 6.6 per cent. Further, there has been a consistent rise in freight revenue. Between 2018-19 and 2022-23, freight revenue has increased at a CAGR of 9 per cent (Figure 6.6).

iii. Air Connectivity

6.3.11 Odisha has formulated civil aviation policy in 2022 with the objective to improve air connectivity in State and with different cities in India and abroad. The State has invested in building new airports, airstrips, and in redevelopment of existing airports. As of now, the state is connected with 19 cities in India and 3 international destinations. The State has four domestic operational airports and one international airport. Further, the State is developing another international airport in Puri (Figure 6.7).

6.3.12 Biju Patnaik International Airport, Bhubaneswar recorded 69.7 per cent growth in passenger traffic in 2022-23, and a revenue growth of 69.2 per cent over the previous year. Bhubaneswar Airport is now connected with three international destinations– Bangkok, Singapore and Dubai via direct flight.

Figure 6.7 Civil aviation sector in Odisha



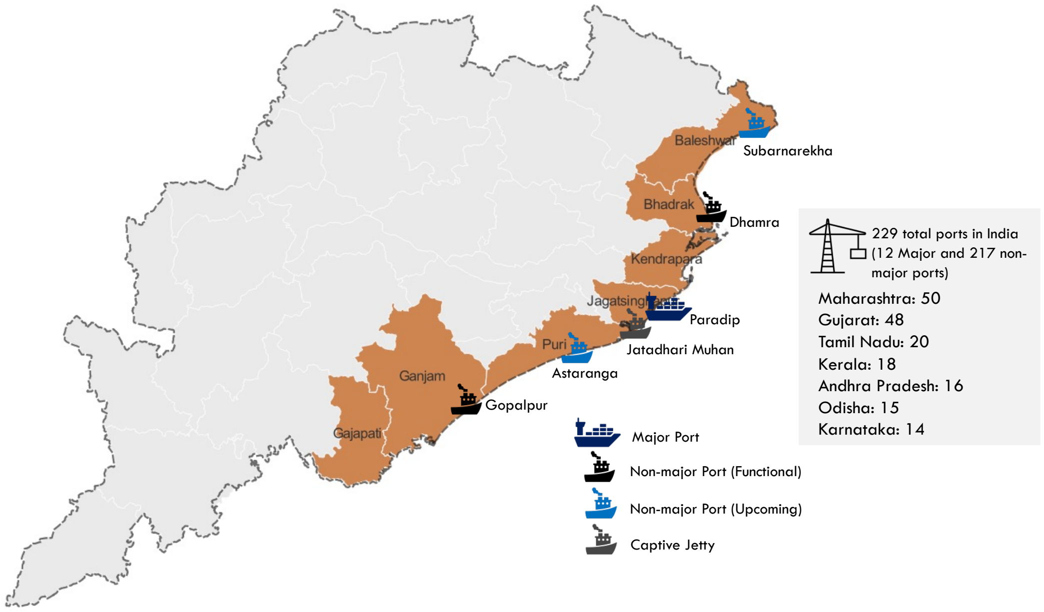
Source: Airport Authority of India, Bhubaneswar

6.3.13 The civil aviation sector in Odisha has experienced substantial growth in 2022-23. Between 2021-22 and 2022-23, the number of domestic flights increased by 1.6 times, the number of passengers rose by 1.7 times, and total revenue earnings grew by 1.7 times (Figure 6.7). Despite this progress, Odisha has the lowest number of passengers per million population among the major states, with only 86 thousand passenger against all India level of 240 thousand passengers.

iv. Ports

6.3.14 Port connectivity and operational efficiency are critical for facilitating exports and increasing export competitiveness. Odisha has three operational ports (Paradip, Gopalpur and Dhamra) while two non-major ports (Astaranga and Subarnarekha) are under construction. Besides, the State also envisages developing additional ports, jetties, and riverine ports for facilitating inland transport of freight (Figure 6.8). A statutory body the Odisha Maritime Board (OMB) has been formed in 2022, is responsible for coordinating activities of non-major ports and non-nationalised inland waterways in the State.

Figure 6.8 | Coastal districts with major and minor ports in Odisha, 2023

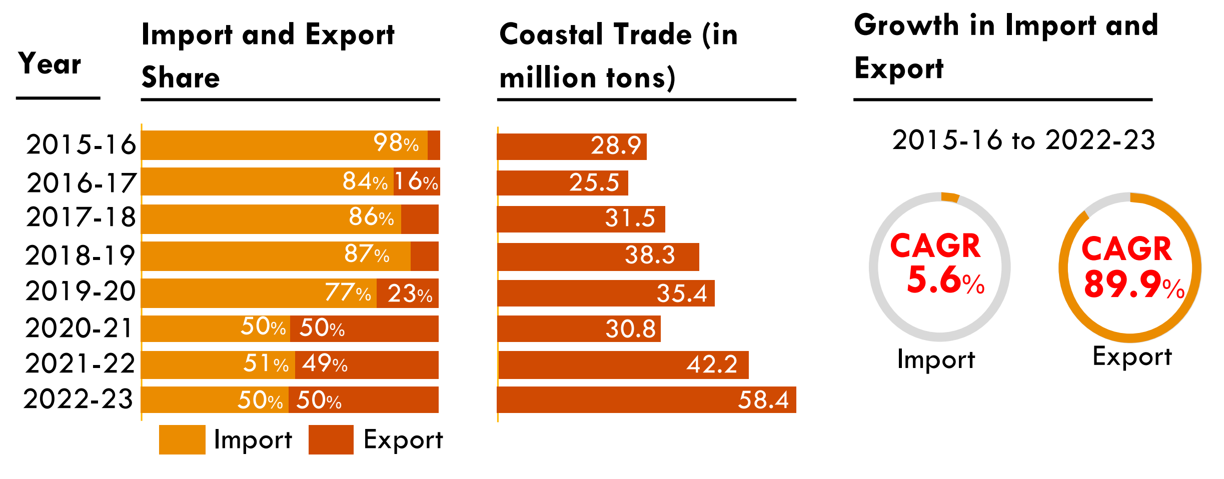


Source: Directorate of Port & Inland Water Transport, prepared by Directorate of Economics and Statistics, Government of Odisha

6.3.15 Paradip Port is the 8th largest and 1st major port on the East Coast in independent India. Paradip Port is strategically situated to serve a vast hinterland across eastern and central part of the country. Paradip Port enjoys the advantages of soft underwater soil, so that it can be deepened as per the need. Paradip is a customer friendly ISO-9001-2015 certified and International Ships and Port Facility Security (ISPS) compliant port.

6.3.16 As per the report of Ministry of Ports, Shipping and Waterways Government of India, Paradip port contributes 16.1 per cent to total cargo handled by the major ports in 2022-23. During 2015-16 to 2022-23, cargo handling of the port grew at CAGR of 5.6 per cent. Also, the most noticeable change can be observed in the export from Pardip, that has grown at CAGR 89.9 per cent between 2015-16 and 2022-23 (Figure 6.9).

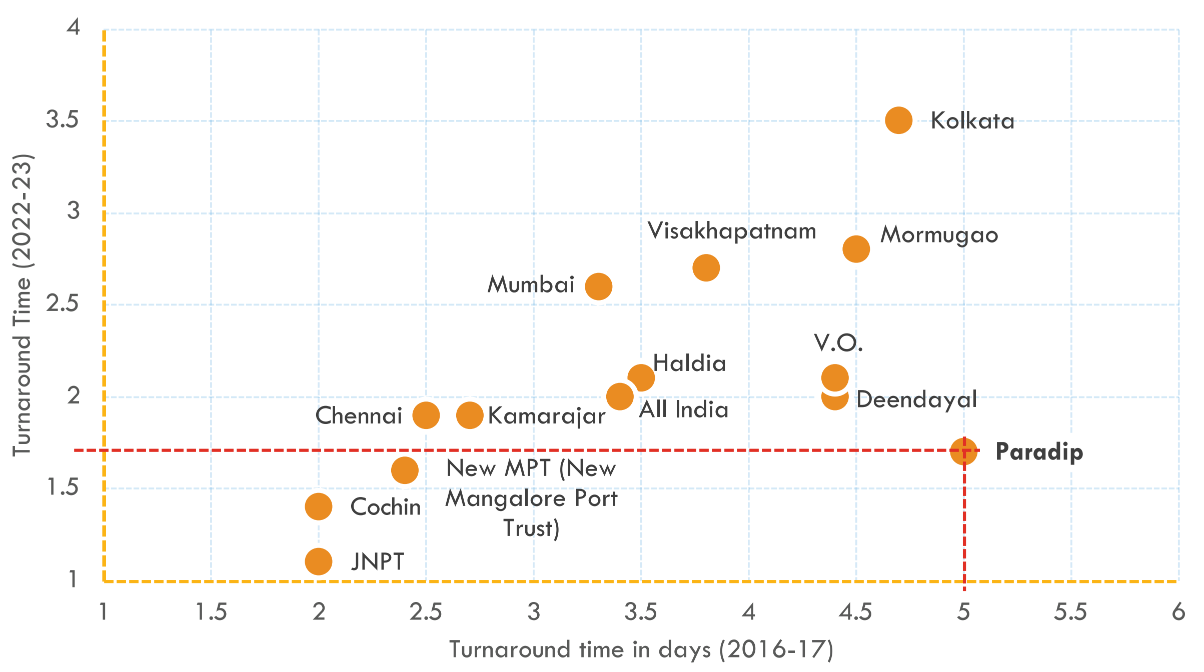
Figure 6.9 Cargo movement from Paradip port



Source: Paradip Port Trust

6.3.17 Paradip Port has improved its operational efficiency by minimizing average ship turnaround time from 14th spot nationally with a 5-day average in 2016-17, to securing the 4th position with an average turnaround time of 1.7 days in 2022-23 (Figure 6.10). However, Paradip lacks in containerized cargo handling capacity, which was only 0.1 per cent of total containerized cargo handled by India in 2021-22. Increasing the share of containerized cargo handling at Paradip would lead to an increase in fisheries and other goods exports from Paradip port.

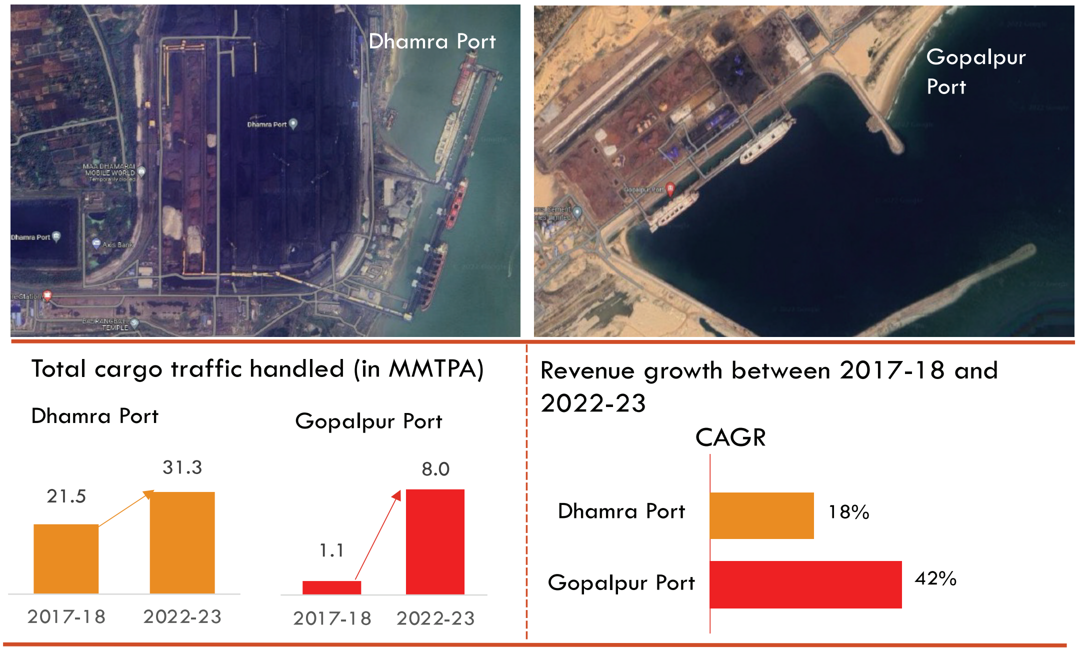
Figure 6.10 Average turn-around time (in days) by ports, 2022-23



Source: Ministry of Ports, Shipping & Waterways, Government of India

6.3.18 Dhamra Port, situated 50 nautical miles north of Paradip Port, is operated primarily by Adani Ports & SEZ Ltd. The port currently has a cargo handling capacity of 45 million metric tons per annum (MMTPA). It stands as the sole LNG import terminal in eastern India and only the second along the entire east coast. Dhamra plays a crucial role in supplying natural gas to regions including Uttar Pradesh, West Bengal, Odisha, and the North-Eastern Belt. In 2022-23, Dhamra Port handled 31.3 MMTPA of cargo, generating a total revenue of INR 197.8 crore. Import activity has increased since 2017-18, while exports grew at a CAGR of 19 per cent between 2017-18 and 2022-23 (Figure 6.11).

Figure 6.11 | Dhamra and Gopalpur ports -Odisha



Source: Directorate of Port & Inland Water Transport, Government of Odisha, Prepared by Directorate of Economics and Statistics, Government of Odisha

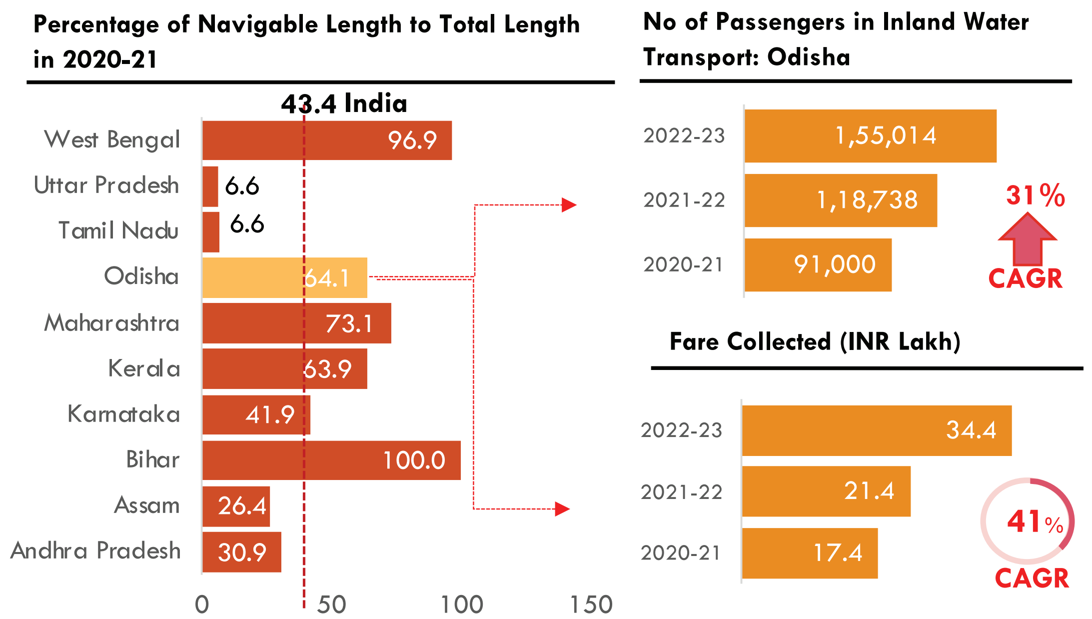
6.3.19 Gopalpur port was established by the State as a seasonal lighterage port. Currently, it is managed by the Shapoorji Pallonji Group. The port has a cargo handling capacity of 20 MMPT, with an MoU signed for an LNG Terminal. In 2022-23, Gopalpur port managed 8.0 MMTPA of cargo, generating a total revenue of INR 20.1 crore. Both import and export activities increased by 6 times and 8.1 times respectively between 2017-18 and 2022-23.

v. Inland Water Transport

6.3.20 Around 64.1 per cent of total length of Odisha's rivers/canals/lakes are navigable which is 5th highest in India (Figure 6.12). The waterways have the potential to reduce logistic costs and decongest roads. During 2022-23, 1.55 lakh passengers were moved by Inland Water Transport (IWT) and registered CAGR of 31 per cent from 2020-21. Between 2020-21 to 2022-23, Odisha's revenue collection grew at CAGR of 41 per cent.

The Port Policy 2022 highlights several policy actions aimed at increasing IWT's fleet, private sector participation with fiscal incentives in Inland Water Transport (IWT) sector, infrastructure development such as fairways, terminals, and navigational aids. Development of inland waterways' infrastructure will lead to increase in movement of freight and reduce logistic costs.

Figure 6.12 Navigable length of waterways



Source: Inland Waterways Authority of India; Directorate of Inland Water Transport, Odisha, Government of Odisha

6.3.21 Two national waterways (NW5 and NW64) are partially functioning out of six NWs in Odisha. To develop an Inland Navigation System for movement of cargo from the industries and mines to the ports, an MoU was signed between Government of Odisha, Inland Waterways Authority of India (IWAI), Paradip Port Trust (PPT) and Dhamra Port for the stretch between Talcher to Paradip and Dhamra. In 2023-24, NW-5 handled cargo totaling 0.57 MMPTA, while NW-64 handled cargo amounting to 0.6 MMTPA. Both waterways have the capacity to handle 80-90 million tons per annum (MTPA) of cargo.

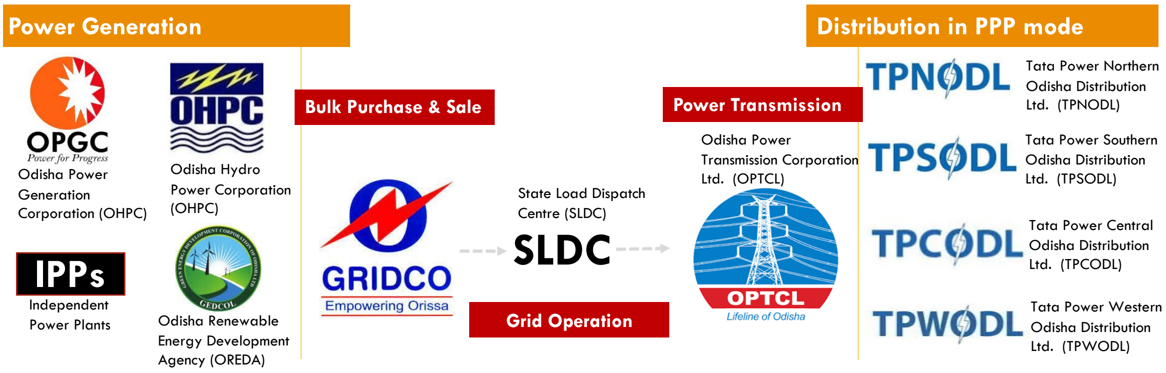
6.3.22 The first and second phase work in NW-5 on the Mahanadi is under progress. The first phase will connect a patch of 201 Kms from Jokadia and Pankapal (Kalinganagar) to Dhamra and Paradip. The second phase of 131 Kms will connect the coal – rich Talcher area. Given that coal from Talcher to Dhamra and Paradip ports is the most important potential cargo for this stretch, the inland route has high potential of handling cargo after completion of this waterway route.

6.3.23 According to the Detailed Project Report (DPR) by the IWAI, approximately 11 million tonnes of cargo are projected to be transported annually on NW-5, and that can raise to 23 million tonnes over the next 15 years. The expected commodities for transportation include minerals (coal, iron ore), agricultural products (paddy, rice, straw, animal fodder, fish, jute), and finished goods/manufactured products from Kalinga Nagar industries, textiles, and forestry.

vi. Power sector

6.3.24 The energy sector is the most critical component of infrastructure for economic growth and social welfare. Odisha primarily depends on traditional sources of energy such as thermal and hydro power. Thermal power is a major component of Odisha's energy mix. In terms of consumption, industry sector accounts for 44.1 per cent of total electricity consumption, followed by domestic consumers at 28.8 per cent, other utilities, and bulk supply with 24.2 per cent and agriculture sector accounts for 2.9 per cent of electricity consumption.

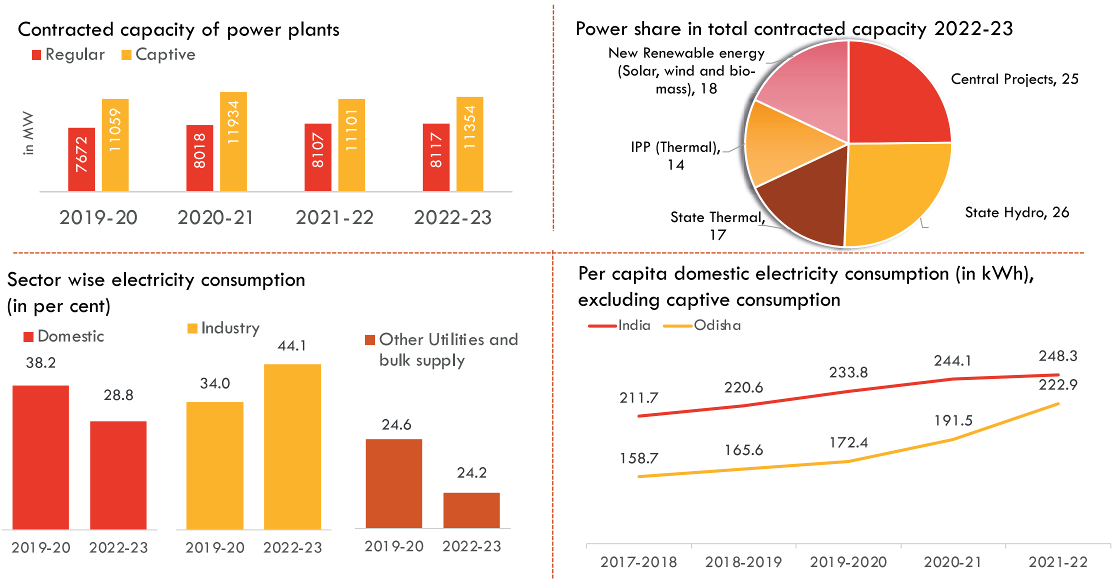
Figure 6.13 | Energy sector scenario of Odisha



Source: Energy Department; Prepared by Directorate of Economics and Statistics, Government of Odisha

6.3.25 The per capita domestic electricity consumption in Odisha remains below the national average. In 2021-22, Odisha's per capita domestic consumption was 222.9 kWh, which grew at a CAGR of 7.2 per cent between 2015-16 and 2021-22. In comparison, India's per capita domestic electricity consumption was 248.3 kWh in 2021-22, reflecting a CAGR of 4.6 per cent between 2015-16 and 2021-22. With the increasing population, urbanization, and improved energy access, demand for electricity is expected to increase in future. Considering the future demand, Odisha has streamlined all three segments of power sector (power generation, transmission, and distribution) through a Public-Private-Partnership (PPP) model to improve the electricity access, reduce power shortages, and support economic activities (Figure 6.13). Besides, the State has made some progress in leveraging the potential of non-conventional sources like wind and solar.

Figure 6.14 | Contracted capacity, energy mix, sectoral consumption, and per capita consumption of power



Source: GRIDCO, Odisha; Central Electricity Authority, Government of India

Note: Irrigation & Agriculture sector share 2.9% in 2022-23; Other utilities and bulk supply includes commercial, railway, public lighting, public works and bulk supply and other consumption

a. Electricity Generation and Distribution Capacity

6.3.26 Odisha has initiated various reforms in the electricity sector, that have transformed the sector. As of 2022-23, power contracted capacity in Odisha stands at 8116.6 MW, marking a slight increase from 8107.1 MW in the previous year 2021-22. In 2022-23, state hydro plants, constitutes the highest share at 26 per cent, followed by thermal plants with a 17 per cent share. New renewable sources, which include solar, and wind constitutes 18 per cent of total contracted capacity. Besides, the State has captive power contracted capacity of 11354 MW in 2022-23 (Figure 6.14). Odisha's contracted capacity increased by two-fold between 2015-16 and 2022-23, but currently ranks 12th in the country.

6.3.27 The estimated demand for power in Odisha stood at 3,625 MW in 2022-23 from 3,088 MW in 2021-22. In 2022-23, 4215 MW of power was available for consumption, constituting 47 percent of the total installed capacity. Peak demand for power was experienced in April, June, while August 2022 demand reaching 6522 MW, which was record high in past six years

b. Transmission

6.3.28 In 2022-23, Odisha Power Transmission Corporation Limited (OPTCL) has added 11 Grid Substations (GSSs) into its network. Recognizing the importance of strengthening the transmission network, the government has extended equity support to OPTCL. This support has facilitated major transmission projects, including a 400 kV system for Paradip. Additionally, new GSSs have been constructed to meet the rising power demands of emerging industries and address low voltage issues in rural areas. OPTCL has taken several measures to ensure stability of network as well as reduction of transmission loss (Figure 6.15). From the year 2007-08 to 202-23, the transmission loss was reduced from 5 per cent to 3.1 per cent.

Figure 6.15 | Government initiatives to strengthen the transmission infrastructure

1. **Grid Infrastructure:** Odisha is part of the Eastern Grid, one of the five regional power grids in India. The Eastern Grid is connected to other grids, allowing for the transfer of electricity between regions to ensure a stable and reliable power supply
2. **State Transmission Utility (STU):** The Odisha Power Transmission Corporation Limited (OPTCL) serves as the State Transmission Utility responsible for the transmission of electricity within the state. OPTCL plays a crucial role in maintaining and upgrading the transmission infrastructure.
3. **Substations:** Odisha has numerous substations that facilitate the transformation and transmission of electricity. These substations play a vital role in voltage regulation and ensuring that electricity is transmitted efficiently over long distances.
4. **Inter -State Connections:** Odisha is interconnected with neighbouring states through inter -state transmission lines. These connections enable the exchange of power between states based on demand and supply requirements.
5. **Grid Expansion Projects** : The state government, in collaboration with central agencies planning to undertake grid expansion projects to strengthen the power transmission infrastructure. These projects aim to enhance the capacity, reliability, and efficiency of the transmission system.
6. **Renewable Energy Integration:** Odisha, like many other states, is working towards integrating renewable energy sources into its transmission network. This includes connecting solar and wind power projects to the grid, contributing to a more sustainable and diverse energy mix.
7. **Smart Grid Initiatives:** To enhance efficiency and monitoring capabilities, there might be initiatives to implement smart grid technologies in certain areas. Smart grids enable better control, communication, and management of electricity distribution.

6.3.29 Allocations have been made to OPTCL for the development of innovative, disaster-resilient transmission and distribution systems exclusively for SCB Medical College and Hospital in Cuttack. OPTCL ensures smooth flow of electricity from generating station to load center. OPTCL has 188 Nos. of Grid Sub-Stations, 25337 MVA transmission capacities and 16024 circuit kilometers (ckm) of transmission lines to manage the peak demand of the state.

c. Smooth grid management and regulatory commission

6.3.30 GRIDCO being one of the major entities drawing power from the Eastern Region Pool, follows grid rules and regulations, especially with regard when and how much electricity to be used and thus, ensuring smooth management of the grid operation through Regional Load Despatch Centres (RLDCs) / State Load Despatch Centres (SLDC).

6.3.31 Odisha Electricity Regulatory Commission (OERC) through orders have transferred the responsibility of CESU to TPCODL from June 1, 2020. Then, WESCO & SOUTHCO were handed over to TPWODL & TPSODL from January 1, 2021. Finally, NESCO was transferred to TPNODL from April 1, 2021. Tata Power Company Limited (TPCL) owns 51 per cent, and the government, along with GRIDCO Limited, owns 49 per cent.

d. Rural Electrification

6.3.32 Odisha has been working on rural electrification initiatives to enhance access to electricity in remote and rural areas. According to State DISCOMs, by 2022-23, the State had 96.6 lakh electricity consumers, up from 94.9 lakh in the previous year. Domestic connection with 88.2 lakh consumers constitutes 91.3 per cent of total consumers in the State while commercial and industrial consumers stood at 5.6 lakh in the State. Rural consumers across all sectors constitute 82 percent of the total consumer base (Table 6.1).

Table 6.1 Sector-wise Distribution of Power Consumers, 2022-23 (in lakh)

Sector	Rural Consumer	Urban Consumer	Total
Domestic	74.2	14.0	88.2
Commercial	3.0	2.3	5.3
Industrial	0.1	0.1	0.3
Others	2.3	0.5	2.8
Total	79.7	17.0	96.6

Source: State DISCOMs

e. Towards a Clean Energy Future

6.3.33 Odisha has brought State energy transition plan and Odisha RE Policy 2022 to reduce carbon emission and increase share of renewables sources in energy mix. The Energy Transition Plan has been formulated to meet the renewable energy requirements of the State. According to the Odisha Renewable Energy Policy (OREP), 2022, the State needs 21,700 MW of renewable energy capacity by 2029-30 to meet new renewable purchase obligations (RPO), of this, about 16,000 MW is required by industries for captive use and 5,700 MW by utility.

6.3.34 As per Odisha Renewable energy Policy, 2022, GRIDCO has been nominated as the State Nodal Agency for development of Renewable Projects in the State with a vision of setting up RE projects of 10,000 MW capacity by 2030 in the State. Accordingly, GRIDCO has taken necessary steps for establishment of

a Nodal Cell for Development of Renewable Energy Proposals by prospective developers with major focus on ground mounted and floating solar power projects, Pumped Storage Power Projects, Small/Mini/ Micro Hydro Electric Projects, and Green Hydrogen/Ammonia Projects. As a first step, the RE Nodal Cell has started working on potential assessment of different types of RE Sources, in coordination with NIWE, NISE & iFOREST.

6.3.35 GRIDCO is coordinating with Ministry of Power, Government of India and OPTCL for development of necessary transmission infrastructure for evacuation/ transmission of RE Power from the generation points to the load centers. GRIDCO is also coordinating with different departments like Industry and Water Resource Department for facilitating the prospective RE developers in acquiring land/ right to use water bodies towards smooth development of the RE Projects in the State.

6.3.36 GRIDCO, as the State Designated Bulk Power Procurer, is responsible for making sure that the power distribution companies (DISCOMs) in the State, along with Legacy Consumers like IMFA & NALCO, meet their Renewable Power Purchase Obligations (RPO). The OERC issued an order on January 17, 2022, specifying the Renewable Power Purchase Obligation targets for the State until 2024-25. The RPO Compliance Status of GRIDCO during FY 2022-23 is given in Table 6.2.

Table 6.2 | Renewable Power Purchase Obligation (RPO) compliance

RPO Compliance for FY 2022-23 (in MU)								
Solar		Non-Solar		Hydro Purchase Obligation (HPO)		Total RPO		
Target	Compliance	Target	Compliance	Target	Compliance	Target	Compliance	
2040.6	1983.7	1568.7	1328.8	89.3	89.3	3698.7	3401.8 (92 per cent)	

Source: GRIDCO

f. Energy Conservation Initiatives

6.3.37 In 2021-22 and 2022-23, Odisha successfully completed Perform Achieve Trade (PAT) Cycle 4 and 5 with the participation of 15 Designated Consumers (DCs). These efforts led to saving a total of 5,57,965 Metric Tons of Equivalent (ToE) energy. Considering the value of 1 million ToE at INR 18,402, this achievement represents a notional savings of INR 1026.8 Crore.

6.3.38 In various government buildings like Kharavel Bhawan, Nirman Soudh, EIC (E)-cum-PCEI(O), Lokaseva Bhawan, ELBO, STL (New & Old,) Rajiv Bhawan, Capital Hospital-Bhubaneswar, DHH-Phulbani and IIIT-Bhubaneswar, a total of 3058 number of conventional energy-inefficient induction-based fans have been replaced with energy-efficient 5-star Brushless Direct Current (BLDC) fans, in compliance of an Investment Grade Energy Audit (IGEA). This has resulted in saving a total of 7.9 lakh units of energy every year. Additionally, this upgrade contributed to carbon dioxide (CO2) emission reduction of 6.4 kilograms per annum, considering a conversion factor of 0.8 kg/kWh.

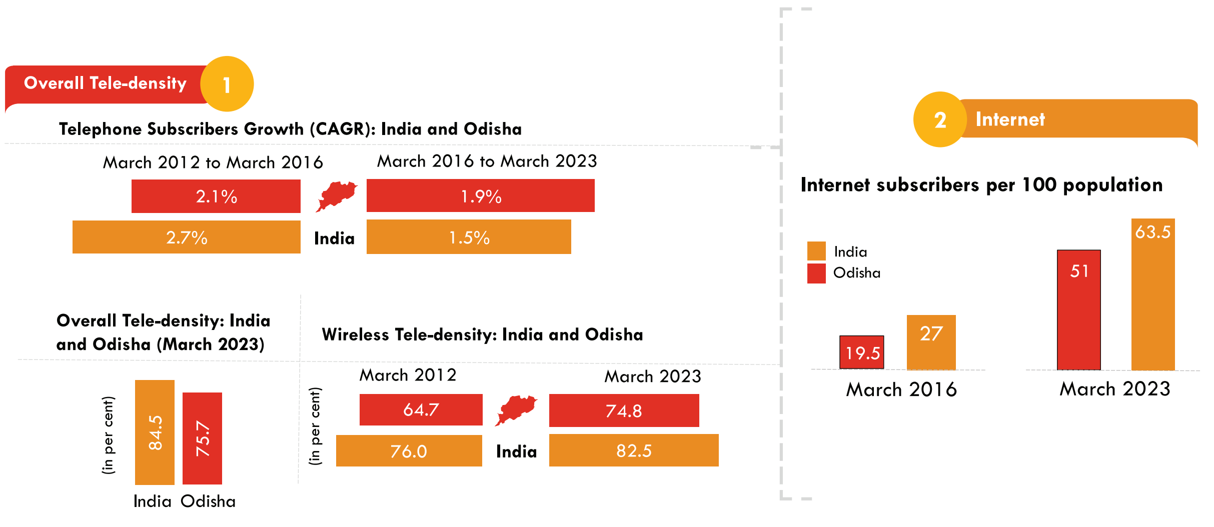
6.4 Digital Infrastructure

i. Telecommunication

6.4.1 Odisha's telecom subscriber increased from 270.8 lakh in March 2012 to 335.5 lakh in March 2023, growing at a CAGR of 2 per cent. Overall tele-density in Odisha has increased from 60.2 per cent to

75.7 per cent during this period. However, this is lower than the teledensity of 84.5 per cent at all India level. Rural tele-density in Odisha has increased from 35.2 per cent in March 2012 to 61 per cent in March 2023. Wireless teledensity in Odisha has grown from 64.7 per cent in March 2012 to 74.8 per cent in 2023. Wireless teledenisty is Odisha is still lower than all-India level of 82.5 per cent in March 2023 (Figure 6.16).

Figure 6.16 | Odisha's progress in digital eco-system



Source: Telecom Regulatory Authority of India (TRAI), Government of India

6.4.2 Number of internet subscribers in Odisha has increased from 8.3 million in March 2016 to 22.58 million in March 2023. Internet subscribers per 100 population in Odisha have increased 2.6 times from 19.5 in March 2016 to 51 in March 2023. The State is still behind all-India average of 63.5 as of March 2023. There is need to improve telecommunication infrastructure in the State in order to drive digital economy including fintech and edtech across the State.

6.4.3 The infrastructure established and maintained by BharatNet serves as the basis for delivering various broadband services, including Wi-Fi Hotspots, Fibre to the Home (FTTH) connections, leased lines, dark fiber, and backhaul connectivity to mobile towers. Through the BharatNet Mission, internet connections were extended by Telecom Service Providers (TSPs) and Internet Service Providers (ISPs) in rural areas. By December 6, 2023, 6805 Gram Panchayats (GPs) in Odisha have been prepared to offer services under the BharatNet Project. The availability of quality telecom infrastructure has resulted in ISPs proving the highest average download and upload mobile broadband speeds in Odisha as compared to other states in India during January 2022 to June 2022.

ii. ICT Infrastructure

6.4.4 ICT infrastructure, including broadband networks, plays a pivotal role in providing connectivity to urban and rural areas in the State (Figure 6.17). With the help of ICT infrastructure, the Government of Odisha facilitates the implementation of e-governance initiatives, making government services more accessible to citizens.

Figure 6.17 Odisha's ICT infrastructure

Bharat-Net

- 3860 GPs -spread over 181 Blocks and 18 districts - Bharat-net Phase I.
- 2945 remaining GPs spread over 133 Blocks in 12 districts (BharatNet Phase II).

Odisha State Data Centre (OSDC)

created with an aim to Host myriad of Government applications. Provides Disaster Recovery Sites and Cloud Services)

Transformation from IPV4 to IPV6

IPV6 implementation (advanced version of IPV4) to further strengthen the digital security for better security (authentication & privacy)

The Electronics & Information Technology Department launched **Telecom Infrastructure Facilitation and Management System (TIFMS)** for

end-to-end management of telecom related activities like setting up of mobile towers and telegraph lines

Odisha State-wide Area Network (OSWAN)

To improve data, video, and voice communications at the block level across the state under the National e-governance Plan (NeGP).

Cyber Security Operation Centre (CSOC) established to prove high quality security by tracking the bugs and fix them

Source: Electronics & Information Technology Department, Government of India

6.4.5 The state has established several institutions that are responsible for planning, developing, and maintaining various aspects of the digital infrastructure. These institutions play a crucial role in engaging in R&D and continuously improving the quality of digital infrastructure and raising people's awareness towards this.

6.5 Housing, Sanitation & Drinking Water

i. Rural Housing and Drinking Water Supply

a. Rural Housing

6.5.1 Access to adequate and affordable housing is a necessity and a precondition for accessing employment, health care, education, and other basic services. The State has been implementing several schemes like Pradhan Mantri Awas Yojana-Gramin (PMAYG), and various other schemes to provide houses to people. To date, the state has constructed over 31.2 lakh rural houses, commencing from the year 2014-15. In 2022-23, 96 percent of housing targets were completed utilizing PMAY-G funds, while the remaining 4 percent were built under state-funded schemes. Further, 12.25 lakh additional eligible households have been identified to receive housing assistance.

b. Drinking Water Supply in Rural Odisha

6.5.2 Drinking water supply to each household holds a top priority for the State (Figure 6.18). Several schemes have been implemented by the State to provide safe drinking water to households in rural and urban areas in the State. The National Rural Drinking Water Programme (NRDWP), BASUDHA schemes and Piped Water Supply (PWS) are being implemented in the State. So far, 14,246 PWS schemes have been commissioned in the State.

6.5.3 Out of 8.9 million rural households, more than 59 per cent households are availing PWS with

Functional Household Tap connection (FHTC) facilities. In 2022-23, 1.4 lakh toilets were built within household premises (Figure 6.18).

ii. Urban Development

6.5.4 The pace of urbanization and the population residing in urban and peri-urban areas has experienced a significant growth over the years. The exponential growth in the peri-urban areas can be attributed to the influx of migrant populations seeking better income and livelihood opportunities. This necessitates improving infrastructure investment in urban areas to provide housing, drinking water and sanitation facilities to people in urban areas.

6.5.5 The State Urban Development Agency (SUDA) has overseen and coordinated the planning and execution of various poverty reduction schemes. Over the past several years, SUDA has diligently fulfilled its responsibilities and made concerted efforts to promote the concept of community management and scientific methodologies for income generation programs.

a. Urban Housing

6.5.6 The Odisha Urban Housing Mission (AWAAS) was inaugurated on October 11, 2015 to address the issue of adequate housing for all in urban areas. In 2022, the state introduced a comprehensive housing policy "Odisha Housing for All" for urban areas, incorporating necessary adjustments to align with the current real estate landscape. This updated policy designates 60 per cent of the 'Developers' Area' for commercial development under the Public-Private Partnership (PPP) model of affordable housing, aimed at attracting more developers to undertake affordable housing Projects (AHP) (Figure 6.19).

6.5.7 Furthermore, the allocation of Economically Weaker Sections (EWS) and Low-Income Group (LIG) houses is now facilitated end-to-end through a robust online 'House Allotment System,' enhancing transparency and streamlining the allotment process in accordance with the state government's interventions to ensure citizen satisfaction. Under Pradhan Mantri Awas Yojana-Urban (PMAY-U) over 1.7 lakh houses have been sanctioned across different verticals and INR 2409.8 Crore have been disbursed to beneficiaries till date.

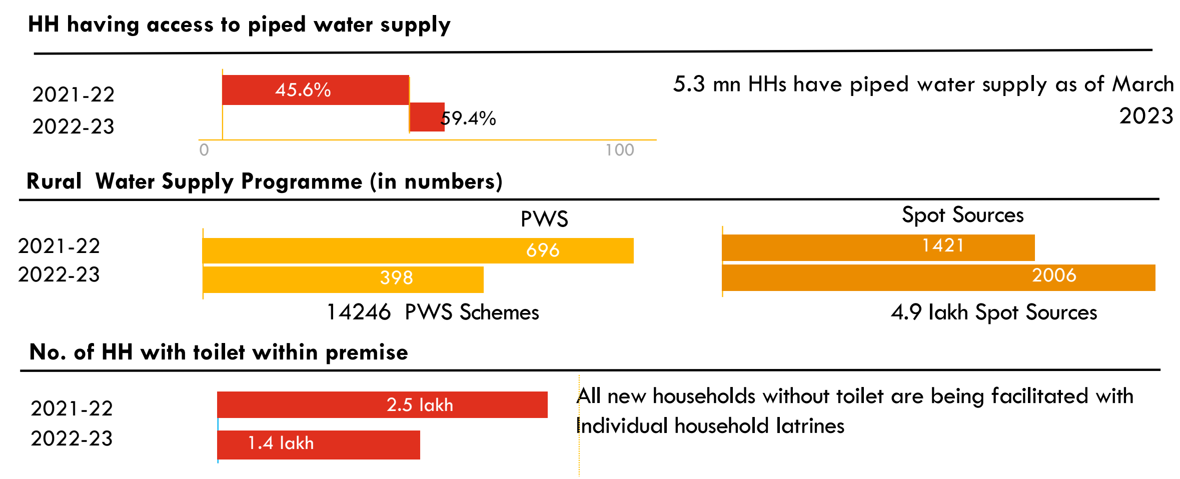
b. Water Supply in Urban Odisha

6.5.8 The State has placed emphasis on enhancing Urban Drinking Water Service to establish a more equitable, efficient, and sustainable urban water supply system. With a mandate for universal coverage, the State aims to ensure that all categories of people have equitable access to adequate and quality drinking water services delivered directly to their doorstep through individual household connections (Figure 6.18). The State's vision is to achieve 100 per cent piped water connection coverage for the entire urban population, ensuring access to good quality water in a fair and sustainable manner.

6.5.9 Through the implementation of various water supply programmes such as 'BASUDHA', 'AMRUT 2.0', and 'SUJAL - Drink from Tap Mission', a total of 982 projects have been executed across all 115 ULBs. Agencies such as Water Corporation of Odisha (WATCO) and Public Health Organization (PHEO) are working on the water supply & sewerage system of ULBs. WATCO is presently operational in 29 ULBs serving more than 65 per cent of the total urban population of the state in drinking water supply, sewage management and septage Management (Figure 6.19).

6.5.10 Public Health Engineering Organization (PHEO) is presently monitoring the water supply & sewerage system of all ULBs and Census Towns of Odisha. In the last financial year, 95 water supply projects have been completed with a total CAPEX of about INR 228 Crores. About 93 per cent of all ULBs under PHEO have been provided with 100 per cent household water connections, that is 80 ULBs out of 86 ULBs (Figure 6.19).

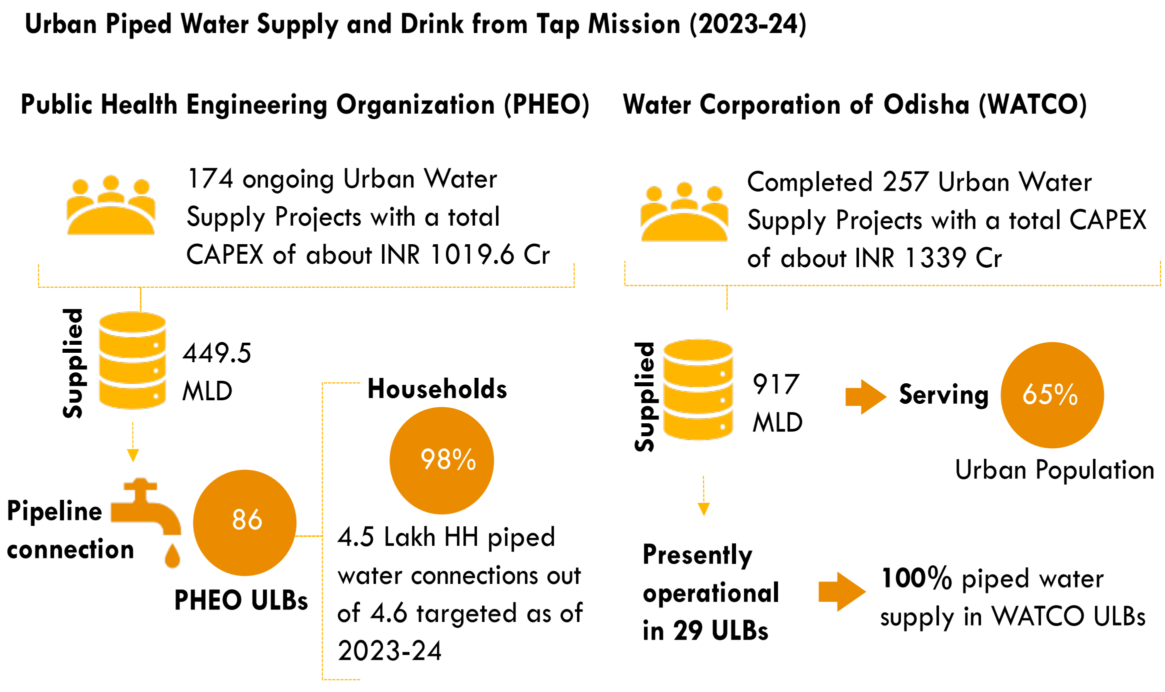
Figure 6.18 Drinking water supplies in Odisha



Source: Chief Engineer Public Health Urban, Government of Odisha

6.5.11 The Government of Odisha has set up a trust 'Odisha Urban Infrastructure Development Fund (OUIDF)' to manage and attract investment for the Urban Development in the state, which is the financial intermediary for AMRUT in Odisha. Under the AMRUT scheme, 100 projects were undertaken in 61 ULBs by the PHEO with a total project cost of INR 2046.3 Crore. During the same period WATCO completed around INR 328 Crore worth of projects under AMRUT.

Figure 6.19 Drinking water supplies in urban areas

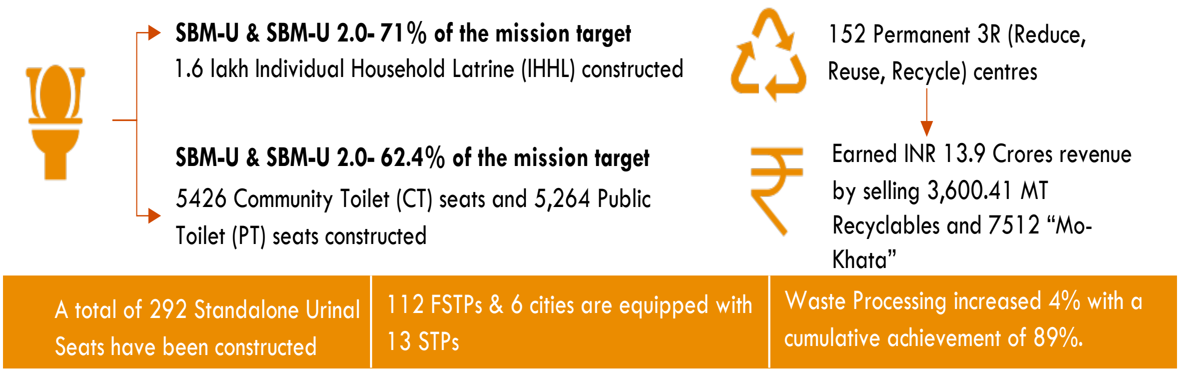


Source: Water Corporation of Odisha, Government of Odisha

c. Sanitation in Urban Odisha

6.5.12 The Odisha Water Supply and Sewerage Board (OWSSB) has implemented various measures to manage environmental challenges arising from insanitation and water pollution (Figure 6.20). These measures include the construction of sewage systems and Septage Treatment Plants (STPs). Among the 115 ULBs in the state, 6 cities are equipped with 13 STPs, with a combined wastewater treatment capacity of 375.5 MLD. Additionally, there are nine Faecal Sludge Treatment Plant (FSTPs) (seven functional and two under construction) with a capacity of 0.4 MLD dedicated to treating septage. These FSTPs cater to areas not covered by the sewer network and peri-urban regions within city limits. In the remaining 109 ULBs, there are 112 FSTPs (111 functional and 1 is under construction). One wastewater treatment plant of capacity 2 MLD at Talcher town has been operationalized for treatment of grey water by interception and diversion of drain.

Figure 6.20 | Urban waste management through SBM-U (2023)



Source: Water Corporation of Odisha, Government of Odisha

6.5.13 Based on insights gained from a pilot project conducted in four geographical areas across two cities, Jatni (M) and Dhenkanal (M), and recommendations from an expert committee, a Scale-up Strategy and Toolkit have been developed for widespread implementation of greywater management in ULBs throughout the state. Furthermore, efforts towards the implementation of greywater management are initiated in all the 110 non-sewered ULBs. Construction of lane level and outfall level intervention are in progress in 9 designated lighthouse ULBs (Angul, Chatrapur, Dhenkanal, Hinjilcut, Jatni, Jajpur, Keonjhar, Koraput, Nayagarh) and seven 7 designated lighthouse ULBs (Angul, Balasore, Chatrapur, Dhenkanal, Hinjilcut, Jatni, Nayagarh)

6.5.14 Out of 115 ULBs, 114 ULBs have been certified as Open Defecation Free (ODF). Out of these one ULB certified as Water+, 33 ULBs certified as ODF++, 18 ULBs certified as ODF+ and 61 ULBs certified as ODF. Across SWM value chain 5,614 women from 2,553 SHG groups are deployed for operation and management of solid waste management assets and service delivery, and 1024 waste pickers are engaged in the sanitation value chain.

6.6 Conclusion

6.6.1 Infrastructure like roads, ports, airports, railway, power etc., have been the key enablers of economic development. In recent years, digital infrastructure is taking center stage in infrastructure space due to rise in Industry 4.0, precision farming and spread of emerging technologies such as Artificial Intelligence (AI) and Machine Learning (ML). The state has prioritized both physical and digital infrastructure creation to propel economic growth and improve quality of life. Capital outlay in Odisha has increased by 34.9 per cent in 2023-24 over the previous year, reaching to INR 51,683 crore, constituting 6.2 per cent GSDP.

6.6.2 Several initiatives have been undertaken to build physical and digital infrastructure which includes the establishment of Industrial Areas (IA), clusters with quality infrastructure. Over the years, the state has made some progress in expanding its road network. The road density has also increased from 166.2 km in 2011 to 196 km in 2019. But odisha ranks 7th in road density in the country among major states in 2019. In 2022, there were 3.8 km of national highways per 100 sq. km, compared to the all-India average of 4.3 km. Though surface road has increased in the state, there is need to improve quality of road in terms of expressway, national and state highway.

6.6.3 With regard to rail connectivity, by the end of 2022-23, the State had 2,992 Km of railway route, out of which 2940 (98.3 per cent) have been electrified. The railway density in Odisha is still low at 17.5 km per '000 sq. km in 2022 against 20.7 km at all India level and 26.9 km for average of 17 major states. There is a need to increase railway infrastructure in the State to facilitate movement of freight and passengers. Also, the state's strategic approach to civil aviation has witnessed progress, connecting with 19 cities in India, including international destinations like Dubai, Singapore, and Bangkok. Despite this progress, Odisha has the lowest number of passengers per million population among the major states, with only 86 thousand passengers and against all India level of 240 thousand passengers. There is need to develop aviation sector in the State.

6.6.4 To harness the potential of its 480 km coastal line, the State has identified and designated 14 locations for development of ports and captive jetties. Odisha has three operational ports (Paradip, Gopalpur and Dhamra) while two non-major ports (Astaranga and Subarnarekha) are under construction. According to the Ministry of Ports, Shipping, and Waterways, Government of India, Paradip, the sole major port in Odisha, contributes 16.1 per cent to the total cargo handled by major ports in India. From 2015-16 to 2022-23, the port's cargo handling grew at a CAGR of 8.6 per cent. However, Paradip lacks in containerized cargo handling capacity, which was only 0.1 per cent of total containerized cargo handled by India in 2021-22. Increasing the share of containerized cargo handling at Paradip would increase fisheries and other goods exports from Paradip port. Additionally, inland waterways need to be developed for cargo transportation.

6.6.5 Industry is the leading consumers of electricity with 44.1 per cent of the total consumption, followed by domestic consumers with 28.8 per cent, agriculture sector with 2.9 per and other utility services with 23.0 per cent. Despite having a high contracted power capacity, Odisha has a lower per capita domestic electricity consumption (222.8 kWh) compared to all India level (248.3 kWh) in 2021-22. Considering the future demand, the State has set a target to set up 10000 MW RE capacity by 2030. In the coming years, lot of focus need to be given to increase the share of renewables (solar, hydro and wind) in the energy mix to meet the growing demand of industry, services and domestic sectors.

6.6.6 Telecom subscribers in the State have increased from 270.8 lakh in March 2012 to 335.5 lakh in March 2023, by growing at a CAGR of 2 per cent. The tele density level in Odisha (75.7 per cent in March 2023) is lower than the national average of 84.5 per cent in March 2023. Wireless density in Odisha stood at 74.8 per cent in 2023, which is below national average of 82.5 per cent as of March 2023. Internet subscribers per 100 population in Odisha have increased 2.6 times from 19.5 to 51, between 2016 and 2023. However, the State is behind all-India average of 63.5 as of March 2023. There is need to improve telecommunication infrastructure in the State in order to drive digital economy including fintech and edtech across the State.

6.6.7 As per NFHS survey 2019-2,1 59 per cent households in Odisha living in pucca houses. The state constructed 99.8 per cent of houses utilizing central PMAY-G funds effectively in rural Odisha. In 2022-23, in urban areas 1.7 lakh houses have been sanctioned. The state emphasizes access to drinking water, sanitation facilities, and pucca housing to promote more equitable, efficient, and sustainable development.

CHAPTER 7

SOCIAL DEVELOPMENT

ABSTRACT

Sustainable development requires both growth as well as rapid improvement in several development indicators. As per latest Household Consumption Expenditure Survey 2022-23, Odisha's average monthly per capita consumption expenditure (MPCE) ranked 15th in rural areas and 12th in urban areas among 17 major states. In Odisha, average monthly per-capita consumption expenditure was INR 2,950 in rural areas and INR 5,187 in urban areas relative to All-India average of INR 3,773, and INR 6,459 respectively.

As per NITI Aayog's MPI report 2023, the proportion of population which is multi-dimensionally poor (Headcount Ratio) in Odisha declined from 29.34 per cent in 2015-16 to 15.68 per cent in 2019-21. During this period, 62.6 lakh people were lifted out of multidimensional poverty.

Despite this progress, Odisha ranks 12th among 17 major states on Multi-dimensional poverty. In terms of intensity, Odisha ranks 14th among 17 major states. Intensity refers to average proportion of deprivations which is experienced by multi-dimensionally poor individuals. This is because of difference in initial level of multi-dimensional poverty. Among 12 dimensions of multi-dimensional poverty, extent of deprivation was high in adequate quality housing (40.7 per cent), nutritional adequacy (30.8 per cent), safe sanitation facilities (39.8 per cent), safe drinking water (13.5 per cent), antenatal care (14.8 per cent), and years of schooling (13.4 per cent).

As per Sustainable Development Goal (SDG) India Index 2023-24 report, Odisha ranks 15th among 17 major states in India, although there is an improvement in SDG score from 61 in 2020-21 to 66 in 2023-24. Odisha performs well on goal 8 (decent work and economic growth) due to past economic growth performance and labour force participation, and improvement in account ownership. Delivery of quality education for all, improving health status, fostering industry innovation and infrastructure, clean water, affordable and clean energy are some of the areas where Odisha needs to make progress for inclusive development.

7.1 Introduction

7.1.1 For the sustainable development, there is a need for acceleration in private investment as well as rapid progress in various development indicators. This means, (i) youth should be skilled enough to be able to generate respectful livelihood for himself/herself, (ii) every new-born child can look forward to long and healthy life, (iii) vulnerable section of the society including women, scheduled castes, scheduled tribes and other socially excluded group are mainstreamed and empowered to achieve their respective potential.

7.1.2 Economic growth is a necessary but not a sufficient condition for social development. Social development is a multi-dimensional concept encompassing key aspects such as poverty eradication, social inclusion, gender equality, access to healthcare, and education among others. This chapter presents an analysis of the progress by the State in Social Development through the lens of Healthcare, Education and Upliftment of vulnerable communities such as Women and Scheduled Castes and Scheduled Tribes (SC/ST) communities etc..

7.2 Sustainable Development Goals

7.2.1 Sustainable Development Goals (SDG) is globally accepted metric to assess level of development apart from crude measures of per-capita income or Gross Domestic Product. India's ambition to be Viksit Bharat by 2047 is contingent on achieving SDGs. There is a global consensus that localization of SDGs (i.e. to States/Districts) is a pre-requisite to achieving various Goals.

7.2.2 Odisha is among the top gainer states between 2018 to 2023-24 in SDG scores. The State is classified under 'Front Runner' category as per SDG 2023-24 report with the composite score of 66. Odisha is currently ranked 15th among 17 major states on SDG Index. Kerala is the highest scoring state in SDG with composite score of 79.

7.2.3 Figure 7.1 presents the goal-wise performance of Odisha as per the SDG 2023-24 report. In parentheses, Odisha's rank among 17 major states is provided, followed by goal-specific scores, which aggregate performance across various indicators through appropriate weightages assigned. Odisha performs well on Goal 8 (decent work and economic growth) with score of 75 and ranks 5. This is due to past economic growth performance, participation of population in the age group of 15-59 in the labour force, bank/post office account ownership. The State can improve its performance further with improving accessibility of financial services through bank branches, cash withdrawal facilities through ATMs, and strengthening protection systems for work force through a robust social security system.

7.2.4 Similarly, Odisha performs well on Goal 12 (responsible consumption and production) with the score of 85 and ranks 6 among major states. This is due to Odisha's relatively strong performance in controlling per capita fossil fuel consumption, the use of nitrogenous fertilizers, and the treatment of hazardous waste etc..

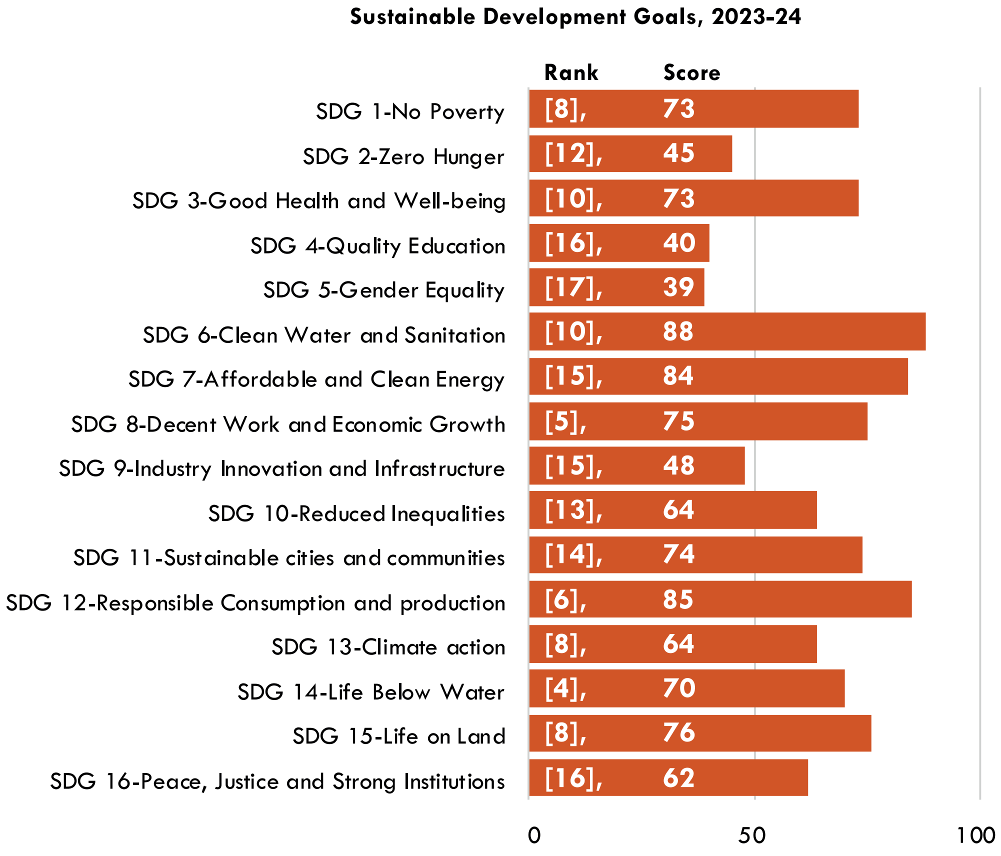
7.2.5 Odisha needs to improve its performance, among others, on Goal 2 (Zero Hunger), Goal 4 (Quality Education), Goal 5 (Gender Equality), Goal 6 (Clean Water and Sanitation), Goal 7 (Affordable and Clean Energy), Goal 9 (Industry Innovation and Infrastructure), Goal 10 (Reduced Inequalities), Goal 11 (Sustainable Cities and Communities), Goal 16 (Peace, Justice and Strong Institutions).

7.2.6 Access to safe and adequate drinking water within premises through piped water supply along with nutritious food and further strengthening health infrastructure across the regions of the State can support in improving health outcomes such as under-five mortality rate, extent of under-weight and stunting among children.

7.2.7 Currently, more than 48 per cent of workforce is engaged in agriculture and allied sector and nearly 17 per cent in construction sector in 2022-23. These sectors, on a relative basis, generate lower earnings for workers. Lower earnings are strongly correlated with social outcomes. Odisha needs to transition towards high productive sectors such as manufacturing and services which would need skilled workforce. This requires addressing present challenges in the delivery of basic education to the population which would join labor force in the coming years. Odisha currently has high drop-out rate in secondary education (27.3 per cent). Exit of students at this scale in secondary education restricts their ability to earn respectful livelihood for himself/herself and makes them vulnerable to low-income opportunities in the future. Odisha has high proportion of trained teachers at secondary school level (nearly 95.6 per cent) and improved pupil-teacher ratio. Despite this, drop-out rate at secondary education level is high. There is a need to identify factors behind high drop-out rate in secondary education.

7.2.8 Apart from high drop-out, in higher secondary class, gross enrollment ratio is 43.6 per cent as against the target of 100 per cent. Similarly, gross enrollment ratio for higher education is only 22.1 per cent of pupils in the age group of 18-23 as against target of 50 per cent. Limited transition of children to obtain higher education limits the possibility of generating productive workforce for future growth sectors such as IT/ITeS, and other emerging sectors.

Figure 7.1 Odisha's performance on SDGs, 2023-24



**Rank among 17 major states in parenthesis, in SDG 14 rank among eight coastal major states*

Source: Sustainable Development Goals Index 2023-24, Niti Aayog, Government of India

7.2.9 SDG report 2023-24 also highlights that gender inequality needs to be addressed from the time of birth and throughout different stages of life (asset ownership, workforce participation, earnings etc.). Odisha ranks 17th among 17 major states with the score of 39 as against the target of 100.

7.3 Social Progress Index

7.3.1 Social Progress Index 2022, measures progress made at the national and sub-national levels across three dimensions– Basic Human Needs, Foundations of Wellbeing, and Opportunity. Each dimension has four components. The framework of the Index includes 89 indicators at the state level and 49 at the district level. Based on the index scores, the Indian states have been categorized into 6 tiers: Tier 1 Very High social progress, Tier 2 High social progress, Tier 3 Upper Middle social progress, Tier 4 Lower Middle social progress, Tier 5 Low social progress, and Tier 6 Very Low social progress. As per the SPI score, Odisha belongs to the tier 5 category of states with a score of 48.19 out of 100. The state has one of the lowest scores across the dimension of Basic Human Needs. However, relatively better performance has been observed across the components of Personal Rights and Personal Freedom and Choice. In order to improve social progress, Odisha needs to focus on key areas such as Access to Information and Communication, Nutrition and Basic Medical Care, and Access to Advanced Education.

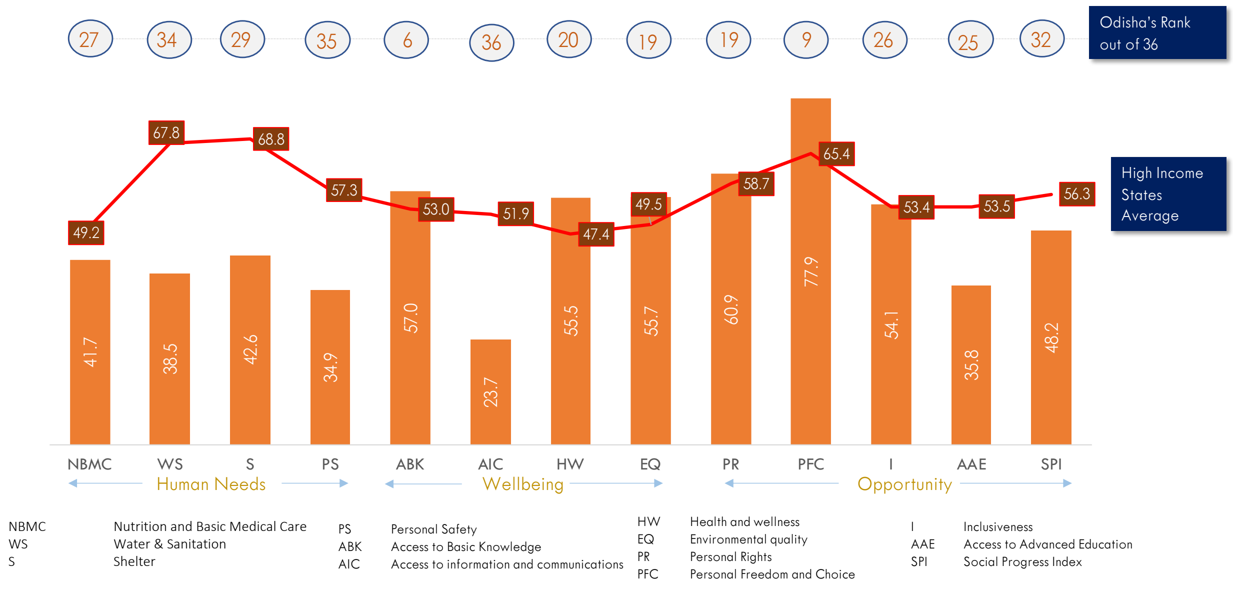
Table 7.1 Social Index Score-: States of India, 2022

Tier 1 (9 states) (62.05 – 65.99)	Tier 2 (6 States) (58.76 – 60.76)	Tier 3 (5 States) (56.27 – 58.26)	Tier 4 (10 states) (50.69 – 54.15)	Tier 5 (3 states) (48.11 – 49.16)	Tier 6 (3 states) (43.95 – 44.92)
Puducherry (66.99), Lakshadweep, (65.89) Goa (65.53), Sikkim (65.10), Mizoram (64.19), Tamil Nadu (63.33), Himachal Pradesh (63.28), Chandigarh (62.37), Kerala (62.05)	Jammu and Kashmir (60.76), Punjab (60.23) Dadra & Nagar Haveli and Daman & Diu ((59.81), Ladakh (59.53) Nagaland (59.24) Andaman and Nicobar Islands (58.76)	Uttarakhand (58.26), Karnataka (56.77), Arunachal Pradesh (56.56), Delhi (56.28), Manipur (56.27)	Haryana (54.15), Gujarat (53.81), Andhra Pradesh (53.60), Meghalaya (53.22), West Bengal (53.13), Telangana (52.11), Tripura (51.70), Chhattisgarh (51.36), Maharashtra (50.86), Rajasthan (50.69)	Uttar Pradesh (49.16), Odisha (48.19), Madhya Pradesh (48.11)	Assam (44.92), Bihar (44.47), Jharkhand (43.95)

Source: Social Progress Index 2022, States and Districts of India, Institute for Competitiveness

7.3.2 Furthermore, an analysis was conducted to compare Odisha's performance against the average scores of high-income states across indicators, that includes Telangana, Tamil Nadu, Haryana, Punjab, Andhra Pradesh, Kerala, Maharashtra, Karnataka, and Gujarat. This comparative study revealed that Odisha's scores are lower than the average scores of these high-income states across most of the indicators. The detailed results of this analysis has been illustrated in Figure 7.2.

Figure 7.2 | Scores on Social progress index across various indicators, Odisha vis-à-vis high income states, 2022

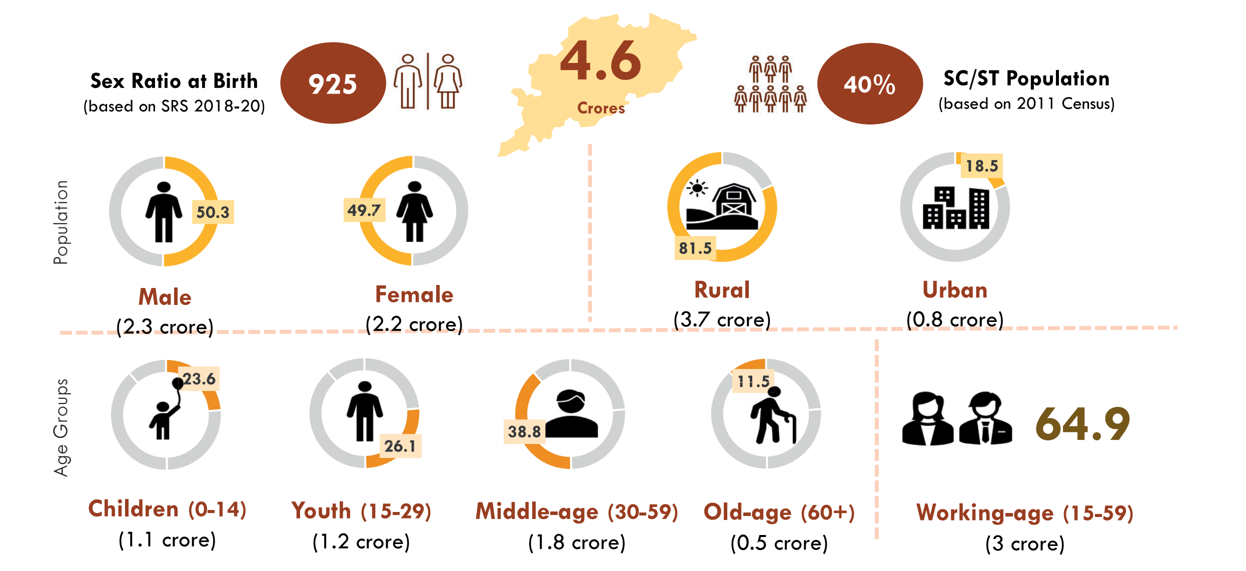


Source: Social Progress Index 2022, States and Districts of India, Institute for Competitiveness

7.4 Demographic Profile and Social Sector Spending of Odisha

7.4.1 Demographic Profile of Odisha in 2021 is illustrated in Figure 7.3. As per the projections of Ministry of Health and Family Welfare (MoHFW) Government of India, Odisha had a population close to 4.6 crore in 2021. Close to 65 percent of the State's population belonged to the working age group (15-59 years), presenting an advantage of higher human resource capital instrumental to drive economic growth and productivity in the near future.

Figure 7.3 | Demographic Profile of Odisha, 2021



Source: Based on Population Projections (2011-2036) of Ministry of Health and Family Welfare, Government of India

7.4.2 Odisha's social sector spending was INR 97,977 crore in 2023-24 (BE). In per capita terms, it is INR 21,172 during the same year.

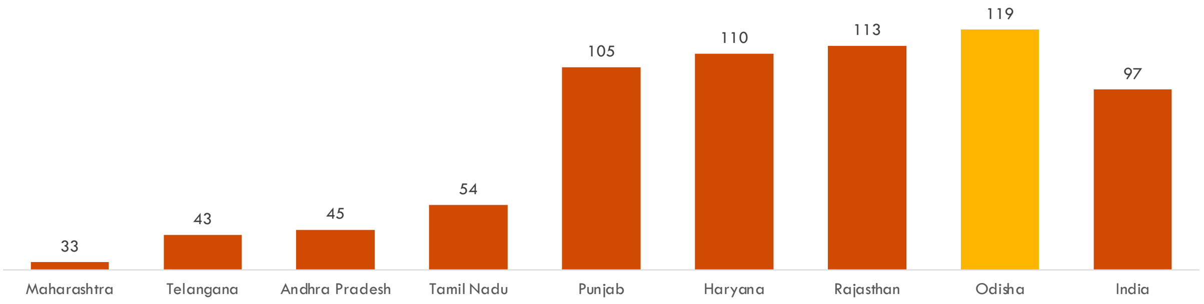
7.5 Health and Nutrition

7.5.1 Increasing investment in healthcare leads to increased labour productivity and improved per capita income. As per an estimate by World Health Organization (WHO), a 10-year increase in average life expectancy at birth is associated with an increase in economic growth by 0.3-0.4 per cent a year. The State's spending on Health sector stood at INR 15,933 crore in 2023-24 (BE). In per capita terms, it is INR 3443 for the same year.

7.5.2 Life expectancy at birth in Odisha has increased by 9.9 years from 60.4 years in 2000-04 to 70.3 years in 2016-20 as per SRS data. The State holds 8th position among the 17 major states in terms of life expectancy. Kerala tops this list with 75 years followed by Tamil Nadu (73.2) and Maharashtra (72.9).

7.5.3 Maternal Mortality Ratio (MMR) in Odisha reduced from 150 per lakh live births in 2016-2018 to 119 in 2018-20 as per SRS data. At all-India level, MMR is 97 in 2018-20. The State ranks 14th among 17 major states. . Kerala is the top performer with MMR of 19, followed by Maharashtra (33), Telangana (43), and Andhra Pradesh (45).

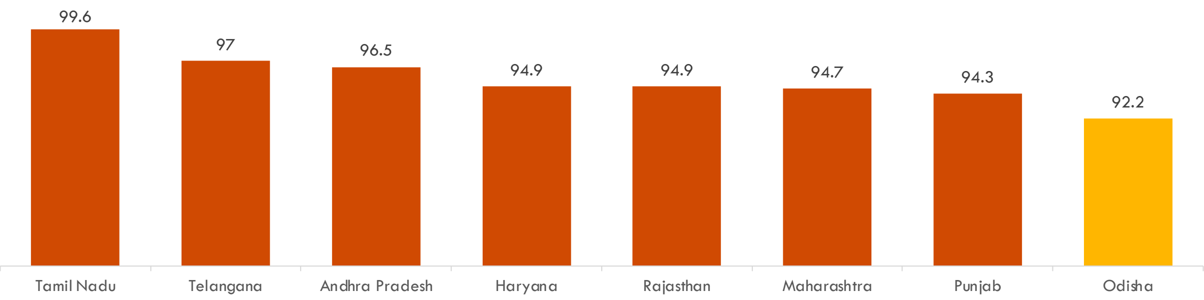
Figure 7.4 | Maternal mortality ratio in Odisha and other states, 2018-20 (no per lakh live births)



Source: Sample Registration System 2018-20, Government of India

7.5.4 The percentage of Institutional births in Odisha increased from 85.3 per cent in 2015-16 to 92.2 per cent in 2019-21 as per the NFHS data. The State currently holds the 11th position among 17 major states. Kerala with 99. 8 percentage of institutional births tops the list, followed by Tamil Nadu (99.6 per cent), Karnataka (97 per cent) Telangana (97 per cent) and Andhra Pradesh (96.5 per cent).

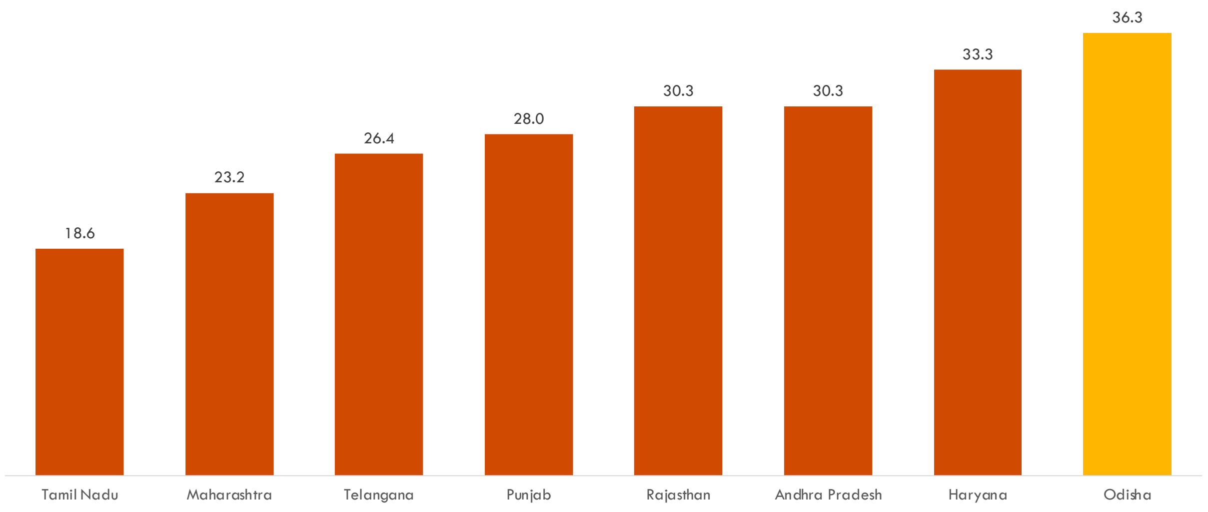
Figure 7.5 | Institutional births in Odisha and other states, 2019-21 (in per cent)



Source: NFHS-5 (2019-21), Ministry of Health and Family Welfare, Government of India

7.5.5 Infant Mortality Rate (IMR) per thousand live births in Odisha in 2019-21 as per NFHS-5 data stood at 36.3 marking an improvement of 3.3 points from 2015-16 level. However, it is still higher than the national average of 35.2 in 2019-21. The State ranks 12th among major states. Kerala is at the top with IMR of 4.4, followed by Tamil Nadu (18.6), West Bengal (22) Maharashtra (23), Karnataka (25.4) Telangana (26.4), and Punjab (28).

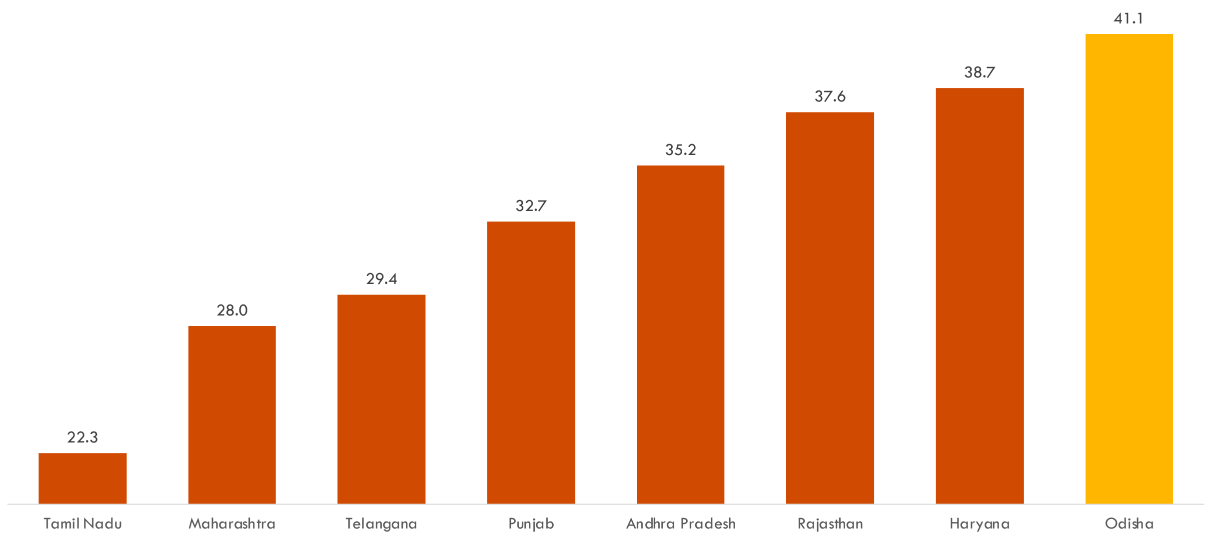
Figure 7.6 Infant mortality rate Odisha and other states, 2019-21 (in '000' live birth)



Source: NFHS-5 (2019-21), Ministry of Health and Family Welfare, Government of India

7.5.6 Under Five Mortality Rate (U5MR)[1] per thousand livebirths in the State declined from 48.1 in 2015-16 to 41.1 in 2019-21 and it ranks 12th among major states. Kerala has the lowest IMR of 5.2, followed by Tamil Nadu (22.3), West Bengal (25.4), Maharashtra (28), Telangana (29.4) and Karnataka (29.5).

Figure 7.7 Under 5 mortality rate in Odisha and other states, 2019-21

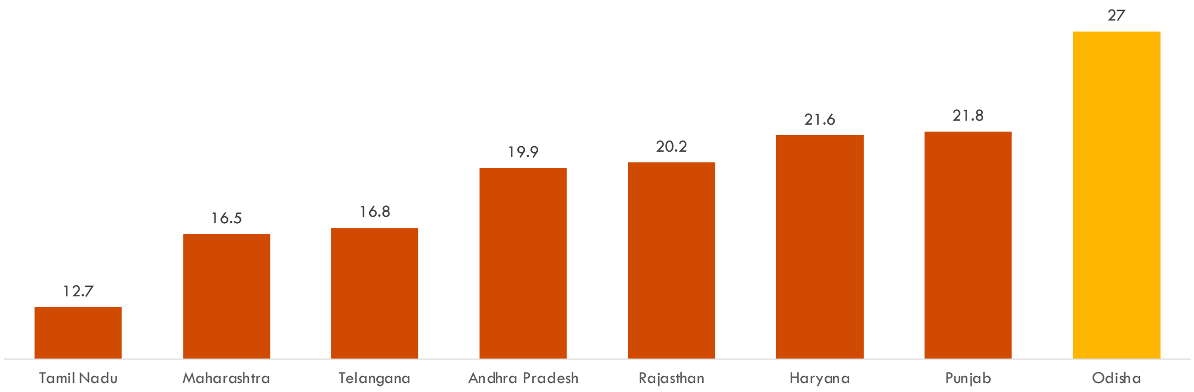


Source: NFHS-5 (2019-21), Ministry of Health and Family Welfare, Government of India

[1] Under 5 mortality rate (U5MR) is defined as the number deaths of children aged below five years per 1000 live births during the specific period.

7.5.7 **Neonatal Mortality Rate (NNMR)**[3] per thousand live births in Odisha has reduced from 28.2 in 2015-16 to 27 in 2019-21 and occupies 12th position among 17 major states. Kerala is the top performer among all the major states followed by Tamil Nadu, West Bengal, Karnataka, and Telangana.

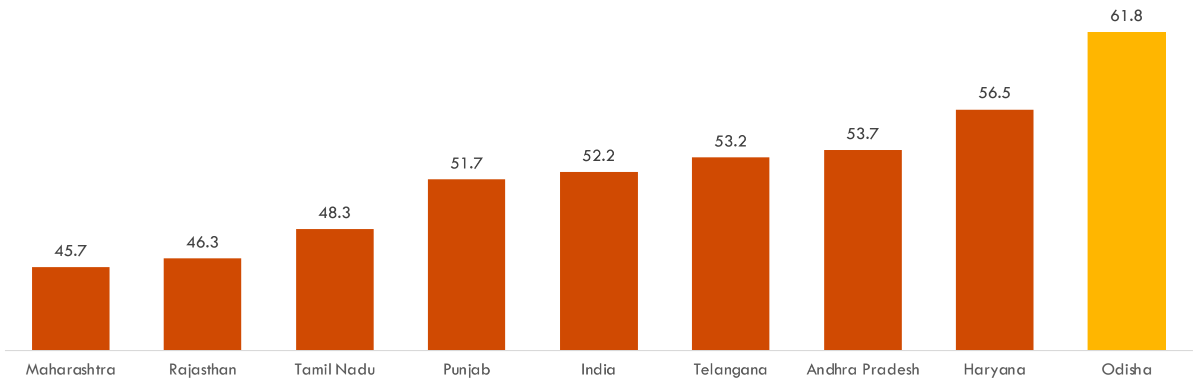
Figure 7.8 | Neonatal mortality rate in Odisha and other states, 2019-21 (in per '000' live birth)



Source: NFHS-5 (2019-21), Ministry of Health and Family Welfare, Government of India

7.5.8 The prevalence of anaemia among pregnant women in the age group of 15-49 years has increased between 2015-16 and 2019-21 by 14.2 percentage points. It is 9.6 percentage points higher than the national average as per NFHS-5 data.

Figure 7.9 | Anaemia among pregnant women (15-49 years) in Odisha and other states, 2019-21 (in per cent)



Source: NFHS-5 (2019-21), Ministry of Health and Family Welfare, Government of India

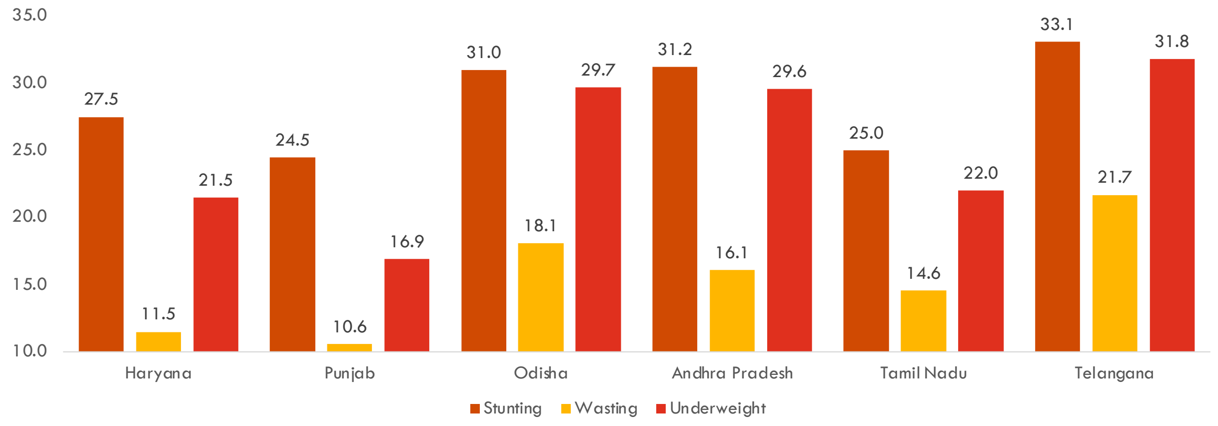
7.5.9 Percentage of pregnant women consuming iron and folic acid in Odisha was 60.8 per cent in 2019-21. The General Fertility Rate is 60.7 in 2020 while the Total Fertility Rate (TFR) is 1.8. Mothers receiving antenatal and post-natal care is 78.1 per cent and 88.4 per cent as per NFHS-5 (2019-21).

7.5.10 The percentage of children below five years of age who are stunted, wasted and underweight in Odisha stood at 31.0, 18.1 and 29.7 respectively. The State holds 5th, 8th and 7th positions respectively in stunting, wasting and underweight among the major states.

[3] Neo-natal mortality Rate is the number of neonatal deaths during a specific period per 1000 live births in that year. Neonatal deaths are deaths occurring during the neonatal period, commencing at birth and ending 28 completed days after birth.

[4]General Fertility Rate is defined as the number of live births per thousand women in the reproductive age group 15-49 years (Source: SRS)

Figure 7.10 Stunting, wasting and underweight children in Odisha and other states, 2019-21 (in per cent)



Note:- Stunted: Height-for-age; Wasted: Weight-for-height; Underweight: Weight-for-age
Source: NFHS-5 (2019-21), Ministry of Health and Family Welfare, Government of India

i. Health Infrastructure

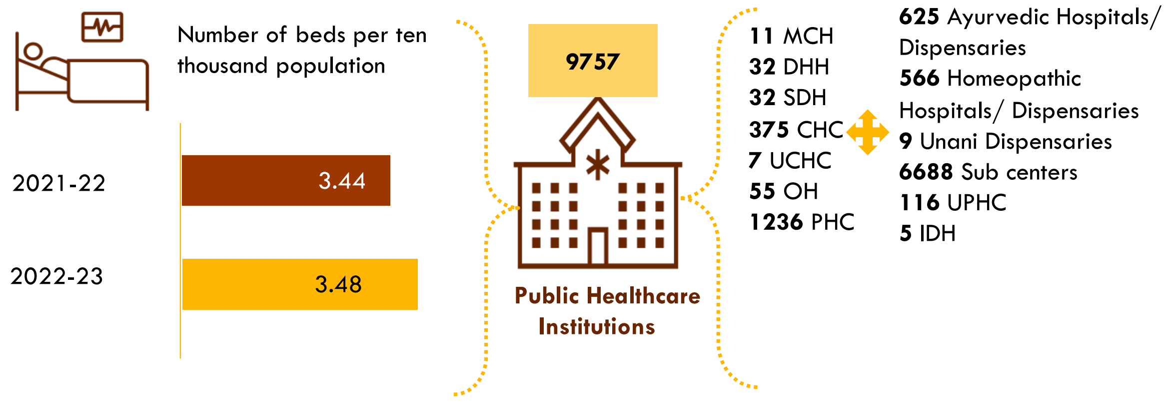
a. Physical Health Facilities

7.5.11 Odisha, currently has 9757 public healthcare facilities. In addition, the State is also establishing new PHCs/UPHCs and upgrading existing PHCs to CHCs and CHCs to SDHs as per the mandate of Indian Public Health Standards (IPHS) 2022.

b. Medical Workforce

7.5.12 Medical Education: Eight new medical colleges at Balasore, Baripada, Bolangir, Koraput, Puri, Keonjhar, Sundargarh and Kalahandi and two new Post Graduate Institutes at Acharya Harihar Cancer hospital, Cuttack and Capital Hospital, Bhubaneswar have been established. Despite the progress, there is still scope for improvement as the average number of beds per government hospitals in Odisha (10) is way lower than the national average of 20 (CMIE, 2020).

Figure 7.11 Snapshot of Health Infrastructure in Odisha in 2022-23



Source: Department of Health and Family Welfare, Government of Odisha

7.5.13 Odisha University of Health Sciences: This has been established in the State in 2023, to provide uniform and Medical Education in Undergraduate and Post Graduate Courses of Allopathy, Homeopathy, Ayurveda, Nursing, Laboratory Technology and other Paramedical Sciences in the State.

7.5.14 Expansion of medical workforce: Close to 4000 doctors and 9000 paramedics have been recruited in the last 5 years i.e., from 2018-19 to 2022-23 to ensure that all public health facilities have the required numbers of doctors and paramedics. In the year 2023-24, recruitment of 4,127 doctors and 3800 paramedics was completed. Further, over 5,000 posts of doctors and over 10,000 posts of paramedics and other staff were created in 2023-24. Odisha has 21 Government ANM Training Centres and 9 Government Nursing Colleges. As of December 2022, Odisha has a total of 75,137 Auxiliary Nurse Midwives and 91,157 Registered Nurses and Midwives.

ii. Healthcare Services

7.5.15 Odisha Comprehensive Cancer Care Plan: To provide Cancer Care services such as Chemotherapy, Onco-surgery, Radiotherapy and Palliative Care , a plan has been made to establish 11 Cancer Hospitals in 3 phases in the State, with a cost of over INR 1000 crore. The Government Cancer Hospital in Bargarh was inaugurated and functionalized in 2023-24. A 100 bedded BMRC Jharsuguda Cardiac Care super-specialty Hospital at Jharsuguda was also inaugurated. This hospital is being operated and managed by the PPP partner, BMRC Hospital, Kolkata.

7.5.16 Expanding specialist care in the State through Public-Private Partnership: Affordable Healthcare projects for setting up multi-speciality hospitals providing specialist care, in PPP mode, are underway in four locations i.e Angul, Barbil, Jharsuguda and Bhadrak.

7.5.17 Employee State Insurance Scheme (ESI) provides full medical benefit to close to 7.4 lakh insured persons (IP). The ESI Corporation has enhanced reimbursement ceiling on medical expenses incurred by State Government U/S 58 (3) to 3,000 per IP. Currently, 27 Super Specialty Hospitals are empanelled to provide cashless treatment to the ESI Beneficiaries and there are 4 operational ESI Hospitals.

7.6 Education and Skill Development

7.6.1 Education is critical not only to enhance human capital but also to foster productivity, entrepreneurship, and technological progress, all of which are essential to drive economic growth. Several empirical studies show a positive correlation between educational investment and economic growth. As per the estimates of World Bank, each additional year of schooling leads to a 10 per cent increase in individual earnings[5].

7.6.2 A budget of INR 27,593 has been allocated to Education sector[6] in 2023-24 (BE). In per capita terms, the spending on education sector stood at INR 6450 during the same year. As per the PLFS data (2022-23), literacy rate of population aged 7 years and above in Odisha is 79.3 per cent in 2022-23.

i. School Education

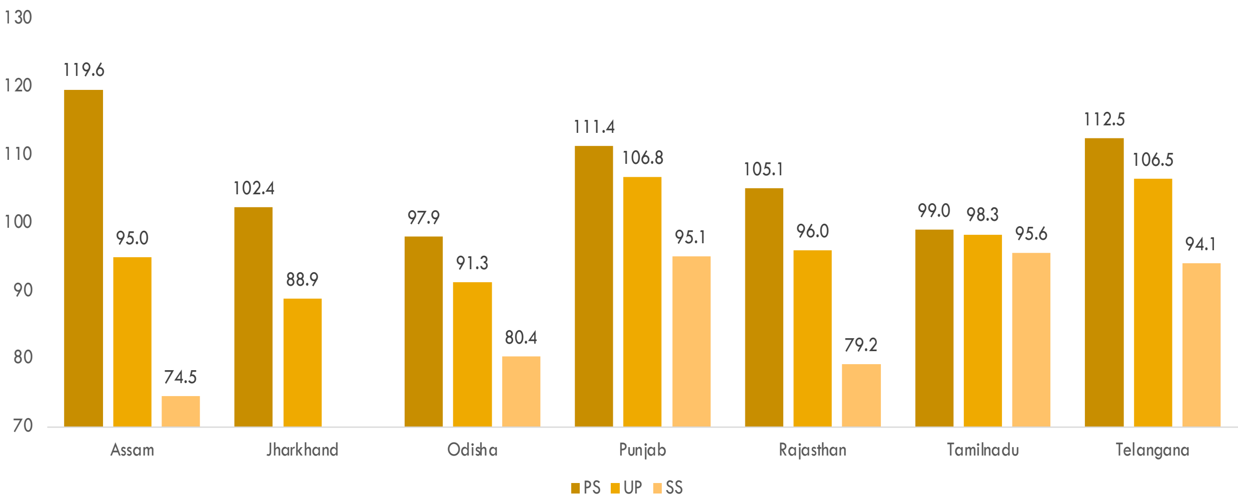
a. School Education Outcome

7.6.3 Gross Enrolment Ratio: According to UDISE data, the Gross Enrolment Ratio (GER) in Odisha (GER) at upper primary (UP), secondary (SS), and higher secondary (HS) levels stood at 91.3 per cent, 80.4 per cent and 43.6 per cent, respectively in 2021-22. GER at primary (PS) and upper primary levels in Odisha is lower than the all-India average. In primary enrolment, Odisha holds 14th rank among major states. West Bengal holds first position with 115 per cent enrolment at primary level, followed by Telangana, Punjab, Karnataka and Maharashtra. At upper primary, secondary, and higher secondary levels, Odisha holds 13th, 10th and 16th positions respectively among major states.

[3] World Bank Working Paper Series (2018). Returns to Investment in Education.

[4]Includes the Expenditure incurred on Education, Sports, Art and Culture

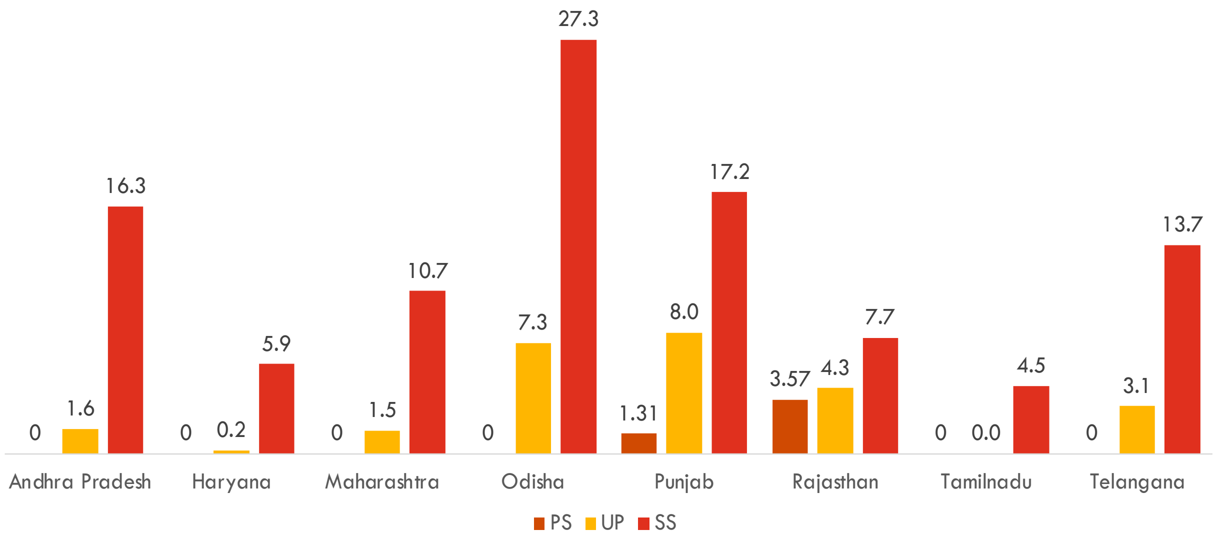
Figure 7.12 Gross enrolment ratio at the primary, upper primary, and secondary level, 2021-22 (in per cent)



Source: UDISE 2021-22, Ministry of Education, Government of India

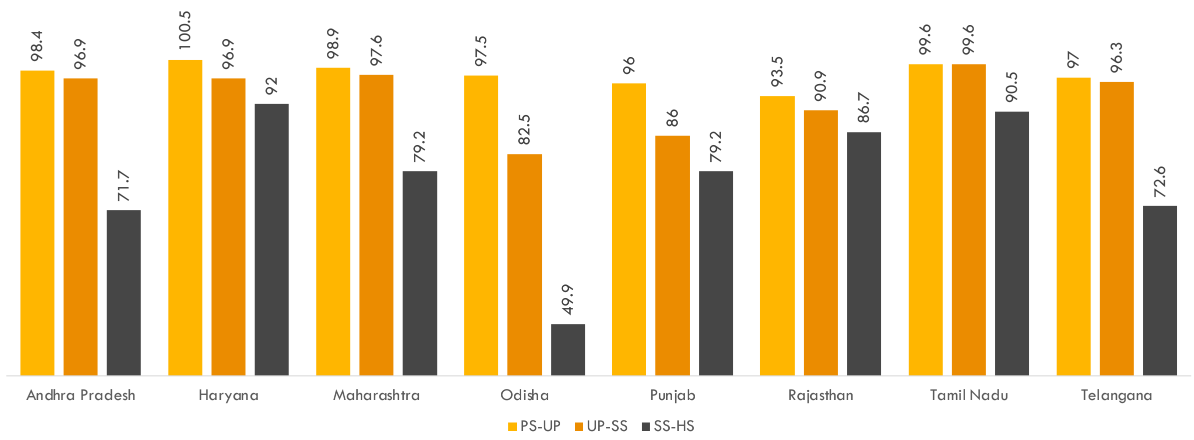
7.6.4 Dropout rate: As per UDISE data, drop out rate at the primary level is zero. However, at upper primary and secondary levels, the dropout rate is higher than All India average. Despite a 22.2 per cent reduction in dropouts at the secondary level between 2014-15 and 2021-22, Odisha still has one of the highest drop out rates at secondary level in India (27.3 per cent). Secondary level dropout rate at all India level is 12.6 per cent.

Figure 7.13 Dropout rate at primary, upper primary and secondary level, 2021-22 (in per cent)



Source: UDISE 2021-22, Ministry of Education, Government of India

Figure 7.14 | Transition rate in Odisha and other states, 2021-22 (in per cent)



Source: UDISE 2021-22, Ministry of Education, Government of India

b. Infrastructural Facilities in Schools

7.6.6 According to UDISE 2021-22 data, Odisha has 62,291 schools. The number of schools per lakh population (aged 6-17 years) is 692 schools. Close to 97 per cent of schools in Odisha had functional drinking water facility in 2021-22 as per the UDISE data. In addition, 90 per cent and 77 per cent of the schools were equipped with functional girls' toilet and functional electricity facilities respectively. The percentage of schools with toilet facilities for Children with Special Needs (CWSN) in the State is close to 55 per cent in 2021-22. The percentage of schools with functional electricity connection, functional boy's toilet facility, computer facility, and internet facility availability in Odisha is below the national average.

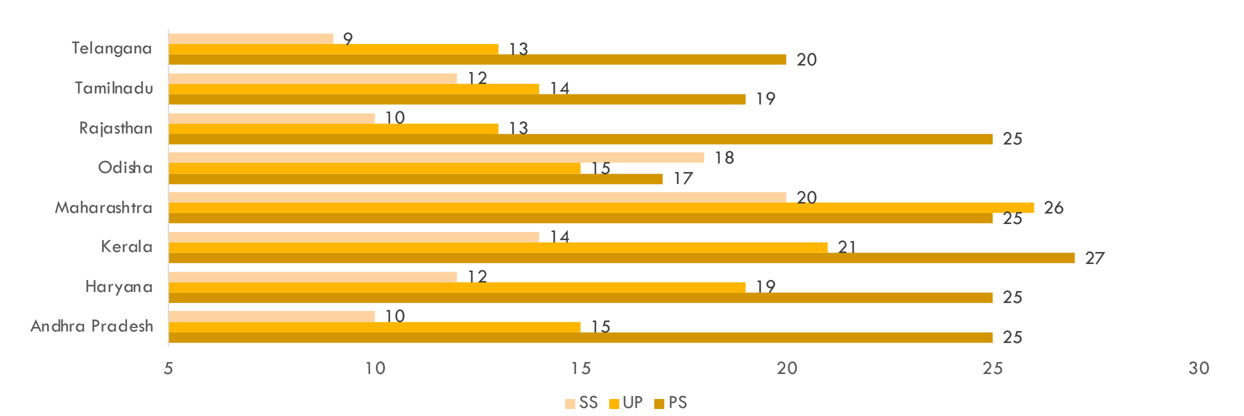
Table 7.2 | Status of infrastructural facilities at schools in Odisha, 2021-22 (in per cent)

Indicator	India	Odisha
	Government	Government
Percentage of Schools with functional electricity connection	85.4	75.1
Percentage of Boys' and Co-educational Schools with functional boy's toilet facility	91.2	88.7
Percentage of Schools with computer facility	37.7	18.3
Percentage of Schools with internet facility available	24.2	8.1
Percentage of schools having drinking water facility within school premises	98.2	98.9
Percentage of Schools with Co-curricular activity room/arts and crafts room facility available	3	2.5

Source: UDISE 2021-22, Ministry of Education, Government of India

7.6.7 Pupil Teacher Ratio (PTR)[7]: In 2021-22, PTR in the State at primary and upper primary levels of education stood at 17:1 and 15:1 respectively as per the UDISE data. This is better than the recommendations put forth by the Right of Children to Free and Compulsory Education (RTE) Act, 2009 (30:1 at primary; 35:1 at upper primary). Furthermore, Rashtriya Madhyamik Shiksha Abhiyan (RMSA) framework stipulates a PTR of 30:1 at the secondary level. Odisha's PTR at the secondary level of education (18:1) is better than the recommended levels.

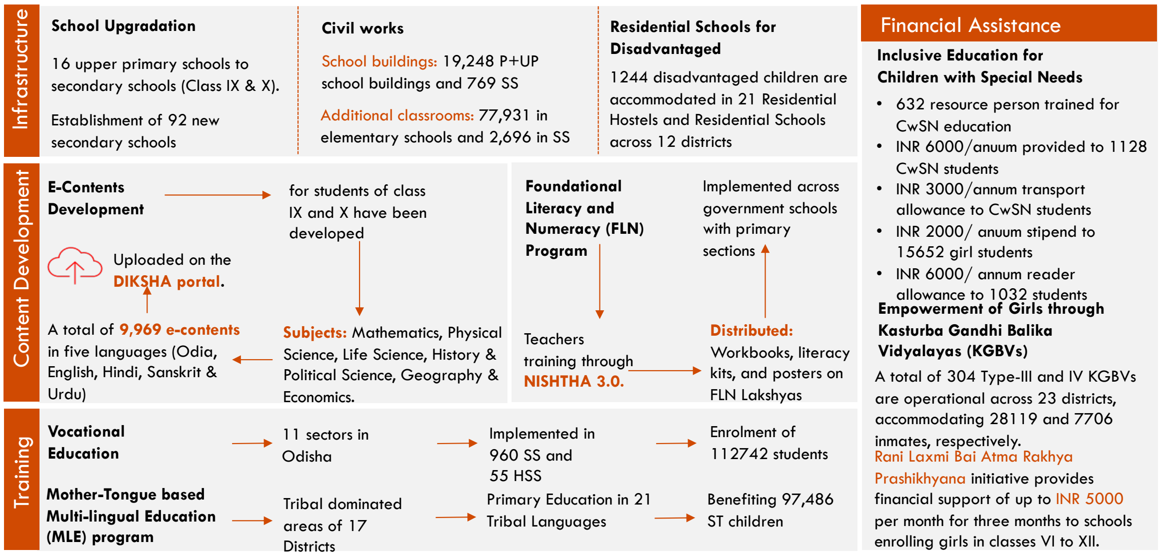
Figure 7. 15 Pupil teacher ratio in Odisha and other states, 2021-22



Source: UDISE 2021-22, Ministry of Education, Government of India

7.6.8 Samagra Shiksha: It is a comprehensive intervention for the entire school education sector, encompassing the level of pre-school to class 12. The key objective is to enhance the effectiveness of school education by ensuring equal opportunities and promoting equitable learning outcomes. In Odisha, the coverage of the programme extends to 61,891 schools, benefiting over 76 lakh students, and involving 3.34 lakh teachers across all managements. Some of the key activities carried out under the programme have been illustrated in Figure 7.16.

Figure 7. 16 Activities under the SAMAGRA Shiksha, 2023



Source: Directorate of Economics and Statistics, Government of Odisha

[7] Pupil-Teacher Ratio (PTR) is the average number of pupils (at a specific level of education) per teacher (teaching at that level of education) in a given school- year.

7.6.9 Odisha Aadarsh Vidyalaya Sangathan (OAVS): It provides free quality education in English medium to students at secondary and higher secondary level from classes VI to XII across the semi-urban and rural areas of the State. Currently, 315 OAVs are operational across the State.

7.6.10 Performance Grading Index (PGI)-2.0 (2021-22): Since its inception in 2017, the Performance Grading Index (PGI) has made remarkable progress in identifying and promoting specific interventions needed for transformational changes in school education in States and Union Territories (UTs). Between 2017-18 and 2020-21, Odisha's PGI rank has improved by 143 points, indicating progress across all PGI domains. However, the State is lagging behind in these parameters in comparison with other major states as per the latest PGI:2.0 report . PGI 2.0 is structured around 73 indicators divided into 6 domains. Based on scores obtained in these domains, states are categorized into 10 grades:

Table 7.3 PGI grades, 2021-22

Sr. No,	Grades	Score range	Percentage
1.	Daksh	941-1000	91% to 100%
2.	Utkarsh	881-940	81% to 90%
3.	Ati uttam	821-880	71% to 80%
4.	Uttam	761-820	61% to 70%
5.	Prachesta – 1	701-760	51% to 60%
6.	Prachesta – 2	641-700	41% to 50%
7.	Prachesta – 3	581-640	31% to 40%
8.	Akanshi – 1	521-580	21% to 30%
9.	Akanshi – 2	521-580	11% to 20%
10.	Akanshi – 3	401-460	Up to 10%

Source: Performance grading Index 2.0, 2021-22, Government of India

7.6.11 Odisha has been placed in the 9th grade (Akanshi – 2) along with Bihar, Jharkhand, Uttar Pradesh, and Telangana. Notably, no states are in the top 5 grades. States like Gujarat, Kerala, Maharashtra, and Tamil Nadu are in the 7th grade (Prachesta – 3).

Table 7.4 Domain-wise score, Odisha and other states, 2021-22

States	Learning Outcomes and Quality (LO) Domain 1 -240	Access (A) Domain 2 -80	Infrastructure & Facilities (I&F) Domain 3 -190	Equity (E) Domain 4 -260	Governance process Domain 5 -130	Teacher Education & Training (TE&T) Domain 6 -100	Total
Punjab	113.4	62.1	102.3	227.2	70.3	72.2	647.5
Tamil Nadu	41.2	66.2	93.5	229.3	77.6	82.7	590.5
Maharashtra	65.8	64.7	73.4	233.4	72.2	73.6	583.1
Haryana	78.4	64.1	77.9	225.9	63.5	68.2	578

Karnataka	59.4	62.4	75	227.6	51.6	73.6	549.6
Andhra Pradesh	47.8	61.8	84	223	67.5	60.3	544.4
Odisha	**65.2**	**52.4**	**60.2**	**214.5**	**59.1**	**65.7**	**517.1**

Source: Performance grading Index 2.0, 2021-22, Government of India

7.6.12 Odisha's score of 65.2 in Learning Outcomes and Quality is below Punjab (113.4) but higher than Tamil Nadu (41.2). This indicates that while Odisha has room for improvement, it is performing better than some states in this domain. With a score of 52.4, Odisha is significantly behind Tamil Nadu (66.2) and also scores lower than most of the other states in the Access Domain. Odisha scored 60.2, indicating a need for substantial improvements in Infrastructure & Facilities compared to Punjab's leading with score of 102.3 and other states. Odisha scored 214.5 in Equity, trailing behind Maharashtra (233.4) and other states. Equity is one area where Odisha shows relatively strong performance but still requires improvement. Odisha scores 59.1 in Governance Processes, performing better than Karnataka (51.6) but still lags behind Tamil Nadu (77.6). Odisha's score of 65.7 in Teacher Education & Training is moderate, falling short of Tamil Nadu's leading score of 82.7. Overall, Odisha is performing lower than states in most domains, indicating a need for targeted interventions and policy reforms to boost state educational performance.

ii. Higher Education

7.6.13 According to AISHE report, the number of colleges in Odisha stood at 1,300 in 2021-22. The number of colleges per lakh population aged 18-23 years was 27 in 2021-22. As per ASHE report 2021-22, GER at higher education is 22.1 per cent, compared to 27.8 per cent at all-India level. However overall, GER has increased by around 2 per cent from the level of 2019-20 in the state. GER is higher among boys (23.5 per cent) than girls (20.6 per cent) in the state. The states like Haryana (33.3 per cent), Karnataka (36.2 per cent), Kerala (41.3 per cent), Maharashtra (35.3 per cent), Telangana (40 per cent) registered a higher GER than Odisha as per the ASHE report 2021-22.

iii. Skill Development and Technical Education

7.6.14 The annual budget of the Skill Development and Technical Education (SD&TE) Department is INR 1206.08 Cr. in 2023-24.

7.6.15 The state has a network of 72 government ITIs, 34 government polytechnics, and 82 skill development centers. Girls' enrolment in these institutions was nearly 30 per cent in 2023-24.

7.6.16 Odisha has initiated Placement Linked Training Programme (PLTP) through mobilization, counselling, screening, training, placement and tracking of unemployed youth . Under the PLTP short term skilling courses are offered in sectors such as apparel, healthcare, tourism and hospitality, construction, rubber, chemicals, and petrochemicals. So far under this initiative, 1.21 lakh students were trained and more than 35 thousand students were provided placements between FY 2011-12 and FY 2023-24.

7.6.17 The State Government has 16 Centres of Excellence (CoEs) in Engineering colleges across Odisha , aimed at providing exposure to industry and training on new age technologies. CoEs focus on areas such as Cybersecurity, Cloud Computing, Aviation, and Automobiles. Additionally, initiatives for CoEs in sectors like Healthcare, Data Analytics & Computing, Renewable Energy, Electric Vehicles (EV), and Additive Manufacturing are underway.

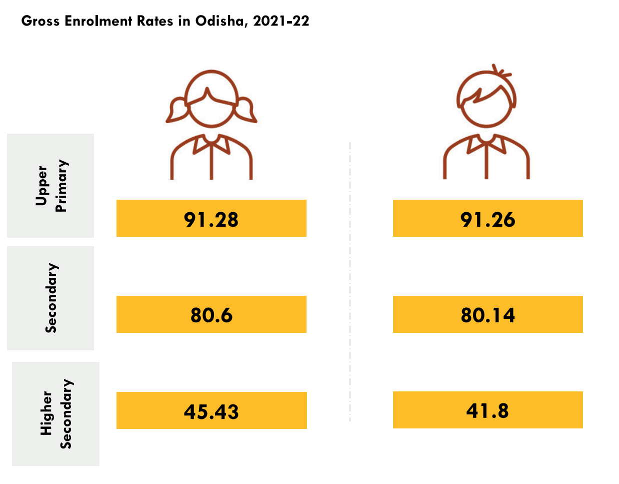
7.6.18 Career Counselling Campaigns were launched to establish a connect between High Schools and ITIs and Polytechnics. These campaigns are implemented in 20 per cent of High Schools on a rotational basis in each district every year. As part of this initiative, 9th and 10th-grade students visit ITIs and Polytechnics for orientation sessions to seek guidance on their career development.

7.7 Women in Odisha

7.7.1 Odisha's female literacy, for women aged above 7 years of age is 73.6 per cent in 2022-23 (PLFS), which is still below all India level female literacy rate of 80.3 per cent. The GER of girls is currently better than their male counterparts at upper primary, secondary, and higher secondary levels as per the UDISE report (2021-22). In 2021-22, a Gender Parity Index of 1 at the primary and upper primary levels, 1.01 at the secondary level, and 1.09 at the higher secondary level was achieved. Furthermore, the GPI at the higher education level is 0.88 in 2021-22.

7.7.2 The State's Female labour participation rate for the the age group of 15 and above is 61.3 per cent.

Figure 7.17 | Gross enrolment ratio in Odisha, 2021-22 (%)



Source: UDISE 2021-22, Ministry of Education,Government of India

Supporting women in distress

7.7.3 Violence against women and girls is one of the widespread human violations in the world and is often unreported due to stigma and shame. Odisha has taken steps to end gender-based violence and offer support to distressed women.

7.7.4 Gender cell was set up by the State Government to promote women empowerment through linkages and referrals. Support is being provided to attain the necessary skills and resources to help women become self-reliant and feel protected.

7.7.5 Odisha State Commission for Women: It is a statutory body under the Odisha State Commission for Women Act, 1993. It serves as a platform for women to voice their concerns, seek assistance and find redressal for various issues affecting their lives. It consists of cells such as Legal Cell, Investigation Cell, Counselling Cell, Free Legal Aid Cell, Research Cell, and Accounts Cell to perform designated activities. During 2023-24, the Commission has resolved 1630 cases out of 2018 registered cases.

7.7.6 As per SRS 2020, there are 925 females for every 1,000 males in Odisha. Odisha is ranked 5th among the major States in terms of sex ratio. Kerala (974) is the leading state followed by Chhattisgarh (958), West Bengal (936), and Andhra Pradesh (926) in 2018-20 (SRS 2020). Apart from this, the percentage of married women (aged 18-49 years) who have experienced spousal violence is 30.6 per cent in 2019-21 as per NFHS data. The percentage of young women (aged 18-29 years) who experienced sexual violence in Odisha is 0.8 per cent in 2019-21, according to NFHS data.

7.7.7 Mission Shakti: Nearly 70 lakh women are organized into 6 lakh groups and have been brought under the coverage of the scheme spanning all blocks and urban local bodies of the state. The bank credit facilitated by Mission Shakti is INR 11,005.10 crores in 2022-23.

7.7.8 Interest Subvention Scheme: It has been introduced to reduce the interest burden on SHGs and promote increased capital investment in livelihood activities. The interest subvention benefit on loans is INR 10 lakhs in 2023. Interest subvention claims totalling INR 216.42 crores were processed.

7.7.9 Mission Shakti Bazaar features eco-friendly and authentic arts and crafts, along with multiple product lines such as corporate gifts, stationery, home accessories, and fashion related items. The women

artisans behind these creations embed a sustainable ethos, emphasizing principles like recycling and material reutilization. This initiative not only economically empowers women but also celebrates the state's cultural legacy.

7.7.10 E-Commerce platform: Mission Shakti has introduced a dedicated online platform to undertake marketing of products from SHGs. It aims to enhance women's financial independence in the digital age and strengthen their negotiating position by connecting with buyers beyond local, state, and national borders. As part of this initiative, approval has been granted for the establishment of a 'Mission Shakti Bazaar' at the SIRD campus in Bhubaneswar.

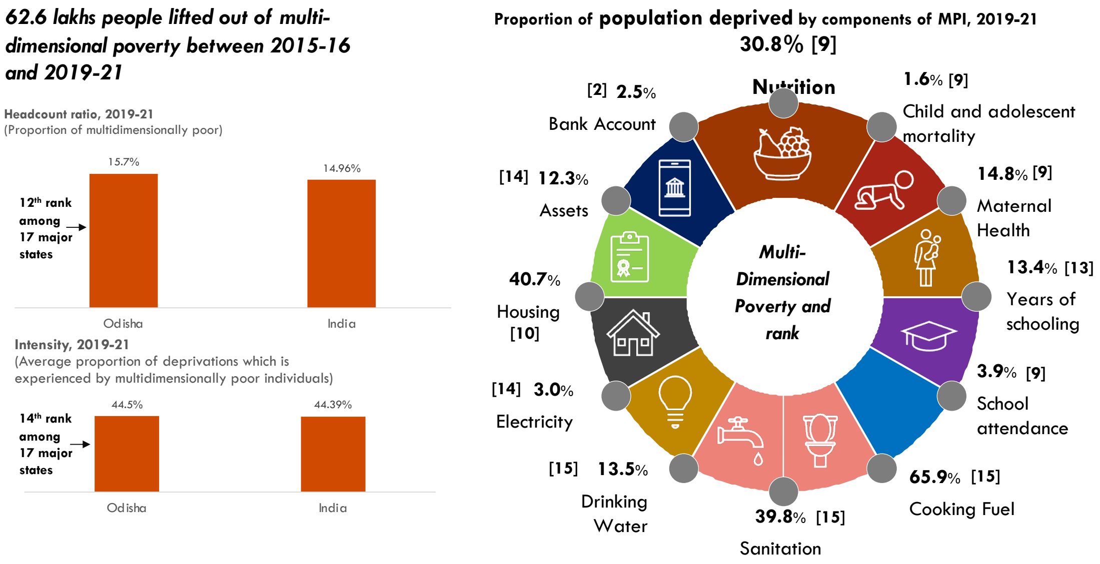
7.8 Poverty alleviation

7.8.1 According to NITI Aayog's MPI report of 2023, the multidimensional poverty headcount ratio in Odisha has improved, declining from 29.34 percent in 2015-16 to 15.68 percent in 2019-21. While this progress is noteworthy; the state still faces considerable challenges. Odisha's multidimensional poverty headcount ratio remains higher than the national average of 14.96 percent, ranking 12th among major states. Additionally, the intensity of multidimensional poverty in Odisha is above the national average, and the State occupies 14th position among major states.

7.8.2 The report also mentions various deprivations faced by the population in Odisha across multiple indicators: 40.7 percent in housing, 39.8 percent in sanitation, 13.5 percent in drinking water, 14.8 percent in maternal health, and 13.4 percent in years of schooling.

7.8.3 Consumption expenditure: As per latest Household Consumption Expenditure Survey 2022-23, Odisha's average monthly per capita consumption expenditure (MPCE) ranked 15th in rural areas and 12th in urban areas among 17 major states. In Odisha, average monthly per-capita consumption expenditure was INR 2,950 in rural areas and INR 5,187 in urban areas relative to All-India average of INR 3,773, and INR 6,459 respectively.

Figure 7. 19 | Multidimensional poverty scenario in Odisha, 2023



Source: National Multi-Dimensional Poverty Index, Progress Review 2023, NITI Aayog

**In parenthesis, rank among 17 major states is provided. As an example, in case of nutrition, rank 9 implies that eight major states have lower level deprivation (i.e. lower than 30.8%)*

7.9 SC and ST Communities

7.9.1 Odisha has 1,737 residential schools and 5,500 hostels, which cater to 4.5 lakh ST and SC students, including 2.75 lakh girl students, across primary, secondary, and senior secondary levels of education.

7.9.2 School dropout: School dropout among ST and SC communities is higher than State dropout rate at upper primary and secondary level. This is interesting to see that across social categories, dropout rate is higher among boys.

Table 7.5 Dropout among SC and ST students across levels in Odisha (2021-22) (In per cent)

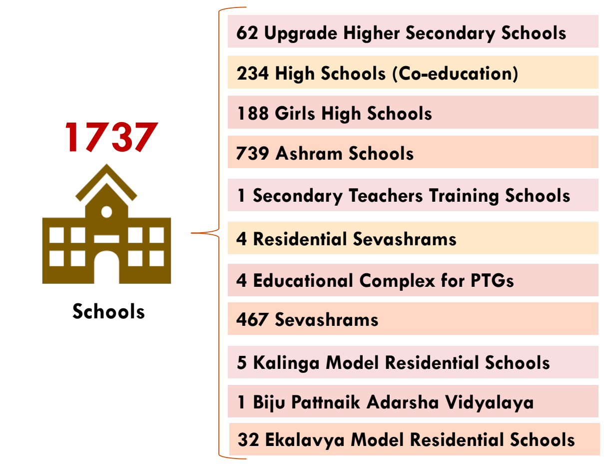
Sr. No.	Primary			Upper Primary			Secondary		
Social Category	Girls	Boys	Overall	Girls	Boys	Overall	Girls	Boys	Overall
SC	0.0	0.0	0.0	7.8	8.5	8.1	29.4	33.0	31.2
ST	0.2	0.6	0.4	7.7	9.8	8.8	30.9	35.3	33.1
Overall	**0.0**	**0.0**	**0.0**	**6.5**	**8.0**	**7.3**	**25.2**	**29.2**	**27.3**

Source: UDISE 2021-22

7.9.3 Government of Odisha is providing scholarships to SC/ST students to offer financial support to continue education. In this regard, the State has released a total of INR 762.4 crores for pre-matric scholarships in 2023-24. Similarly, a total of INR 473.68 crores was released towards post-matric scholarships.

7.9.4 Odisha Scheduled Caste and Scheduled Tribe Development Finance Co-operative Corporation Limited (OSDFC): It was established in the year 1979-80 to take up various economic programmes benefitting poor Scheduled Castes, Scheduled Tribes, and Scavengers of the State. Some of the important programmes being implemented by OSDFC under the Pradhan Mantri Anusuchit Jaati Abhyuday Yojna (PM-AJAY) component are as follows:

Figure 7.20 Educational institutions functioning under the ST&SC development department, 2022-23



Source: ST & SC development, minorities, backward classes, welfare department, Government of Odisha

- Bankable Income Generating Scheme: Under this initiative, subsidy is provided to Scheduled Caste Self Help Groups for implementation of income generating activities across diverse sectors like Agriculture and Soil Conservation, Animal Husbandry, Fishery, Horticulture Development, Minor Irrigation, Industry Service and Business Sector. The financial assistance would be 50 per cent of the cost of the scheme or per capita subsidy of INR 50,000 or INR 5 lakh for the whole group, whichever is lesser.

- Pradhan Mantri Adarsh Gram Yojana (PMAGY): It aims to ensure the holistic development of selected villages with a SC population exceeding 40 per cent by fulfilling basic needs and ensuring dignified living. Each village receives a fund of INR 40 lakh, shared between the Central and State Governments on a 50:50 basis. So far, 1562 villages of the State have been included under the scheme in two phases.

7.10 Sports

7.10.1 With a youth population of approximately 1.19 crore aged 15 to 29 in 2021, comprising nearly 60 lakh males and 59 lakh females, the State acknowledges the pivotal role of youth's social and economic well-being in shaping its future prosperity.

7.10.2 Recognizing the evolving aspirations of youth, changing lifestyles, and shifts in employment market trends, sports have become a critical tool for preparing them for upcoming challenges and opportunities. Additionally, sports play a crucial role in enhancing social development, fostering inclusion, nurturing skills and values, improving health, empowering marginalized groups, and promoting social integration. Therefore, states and nations are taking efforts to create a strong sports eco-system.

7.10.3 Some of the athletes of Odisha have won the medals at international and national levels, Kishore Jena from Odisha earned a silver medal in javelin throw at the 2023 Asian Games in Hangzhou, finishing second only to his compatriot Neeraj Chopra. Amit Rohidas, a defender in the Indian hockey team and its vice-captain, played a pivotal role in securing the bronze medal at the 2020 Tokyo Olympics and the gold medal at the 2023 Asian Games in Hangzhou.

7.10.4 Odisha won 58 medals, securing 10 gold, 18 silver and 30 bronze medals in the national games 2023. Notably, Women football & rugby team won the gold. Cyclist Swasti Singh bagged gold and Pranati Nayak made history by winning four gold medals in gymnastics.. It was the first gold medal in gymnastics ever secured in the history of the State of Odisha.

7.10.5 The State has built stadiums of international standards. Kalinga Stadium Sports Complex in Bhubaneswar feature various sports facilities for Athletics, Football, Hockey, Basketball, Tennis, Badminton, Volleyball, Sports Climbing, Weightlifting, Gymnastics, Weightlifting and Swimming. The recently inaugurated Indoor Athletics Centre is South Asia's largest indoor stadium capable of hosting continental and regional championships regardless of outdoor weather conditions. The Sports Science Centre featuring specialised labs is India's largest and caters to sportspersons and para-sportspersons alike.

7.11 Conclusion

7.11.1 Odisha's approach to social development has yielded some positive outcomes, yet numerous challenges remain to be addressed. The maternal mortality rate in Odisha is higher than the all-India average. The state also lags behind in several child health indicators, a critical aspect for ensuring the development of healthy human capital essential for accelerating the state's growth.

7.11.2 In school education, an important issue is that not all eligible students are in the classroom. Dropout rates at the upper primary and secondary levels are higher than the national average, with an even greater challenge among SC and ST community students. Addressing these educational gaps is crucial for fostering an inclusive and equitable society.

7.11.3 A skilled labour force is important for Odisha's economic growth. To this end, there is a need to expand vocational and technical training programs to equip more individuals with industry-relevant skills. Collaborating with industry stakeholders to design and implement curriculum improvements, apprenticeship programs, and on-the-job training will ensure that the workforce meets the evolving demands of the job market.

7.11.4 Women's labour force participation has increased in recent years, but there is still ample room for improvement. To further enhance women's labour participation, there is a need to collaborate with the private sector to strengthen the enabling environment, such as providing childcare facilities. It is evident from the data that more women are likely to join the workforce in Odisha. The state should incentivize employers to hire and retain female employees to create a more inclusive labour market.

7.11.5 As overtime, the population of elderly people would increase, there is a need to establish more geriatric care facilities and old age homes to cater to their needs. It is also pertinent to ensure access to affordable healthcare services that are tailored to meet the needs of senior citizens.

CHAPTER

8

GOVERNANCE

ABSTRACT

Good Governance plays a pivotal role in creating an enabling environment that promotes economic activities, nurtures innovation, attracts investment and encourages sustainable and inclusive development. Odisha has undertaken several initiatives to improve governance across government institutions in the State and increase resource use efficiency and ensure last mile delivery of services. Implementing e-governance and leveraging digital technologies across government departments and service deliver, Odisha has improved efficiency and transparency in public service delivery and maximising value of limited government resources and creating greater impact.

Initiatives like Odisha Right to Public Services Act, and Odisha One Portal have been introduced to ensure effective public service delivery. Similarly, a host of technologically driven initiatives are being implemented to promote Law and Order (Litigation Management System, Citizen Portal under CCTNS), Digitalization of land records, ensure effective resource management (HRMS, IRMS), foster agricultural digitization (SAFAL, Krushak Odisha, Go-SUGAM portal), enhance Ease of Doing Business (GO SWIFT, PAReSHRAM, i3MS and i4MS) and achieve social welfare and development (Social Protection Delivery Platform, Student Academic Management System). These initiatives ensure effective and efficient governance mechanisms that have been instrumental for delivering services in promoting the state's fiscal discipline and ensuring optimum resource allocation.

Furthermore, despite its high vulnerability to various kinds of natural disasters such as cyclones, floods and droughts, Odisha has improved disaster management over the years. It is key to note that the State's institutional arrangements coupled with effective implementation of initiatives across the lifecycle of disaster management (mitigation, preparedness, response and recovery) played a key role in improving the state's resilience against disasters.

8.1 Introduction

8.1.1 Good Governance is a multi-dimensional concept occupying a central stage in the development discourse. World Bank (1992)[1], in its report 'Governance and Development' defines good governance as, 'the manner in which power is exercised in managing a country's socio-economic resources for development.' United Nations has identified eight major characteristics of good governance which include- consensus-oriented, accountable, transparent, responsive, participatory, effective and efficient, equitable and inclusive and follows the rule of law. The concept of governance and institutions is being given importance in the growth literature. Scholars like Daron Acemoglu and others[2] have shown that the fundamental cause behind some countries being rich and others being poor is the difference in economic institutions. Countries with good governance mechanisms are usually believed to have a stable environment which in turn creates a conducive environment for growth and development.

8.1.2 Good Governance is not only a desirable goal in itself but also a means to achieving desired outcomes such as economic growth and development. There are numerous studies showcasing the positive correlation between governance and economic growth. Kaufmann, Kraay and Zoido-Lobaton (1999)[3] provided empirical evidence on the positive impact of governance on economic outcomes by studying more than 150 countries. In addition, good governance is also instrumental in attracting investment and enhancing business confidence. Transparent and accountable institutions increase the stability of governance systems which further enhances the inclination of businesses to invest more.

8.1.3 Countries with good governance systems experience higher levels of social cohesion, reduced inequality and improved well-being of people. A study by Hall and Jones (1998)[4] has showed that institutions and government policies influence country's long-run productivity, capital accumulation and worker productivity. Hallerod et.al (2013)[5] also stated that good governance has a strong positive effect on human development outcomes such as poverty and nutrition. Good Governance systems also ensure judicious utilization of public resources towards improving access to education, health care and other essential services. Further, they also enable the creation of a just framework that prioritizes social justice, equality and protection of human rights. To sum up, good governance creates an enabling environment that encourages economic activities, nurtures innovation, attracts investment, and promotes sustainable development, all of which are considered vital for propelling economic growth.

8.2 E-Governance Initiatives

8.2.1 E-Governance refers to the use of digital technologies, particularly the information and communication technologies (ICTs), to enhance government processes, service delivery, and citizen engagement. This promotes transparency by making government information accessible to citizens that makes government officials accountable for their actions. By promoting e-Governance, citizens can access information on budgets, government activities and policies. Moreover, by digitizing administrative processes, e-Governance streamlines bureaucratic procedures. Citizens can access services online, reducing paperwork and waiting times. Thus, successful e-governance service delivery enhances citizen satisfaction and creates a conducive environment for economic growth. Odisha has taken following initiatives to promote E-Governance in the state.

8.2.2 Odisha Statewide Area Network (OSWAN): It serves as the key pillar for data, video and voice communications across the State under the National e-Governance Plan (NeGP). Under the second phase of OSWAN (OSWAN 2.0), implementation of advanced technologies such as Software defined WAN, secondary ISP bandwidth for redundancy at SHQ, DHQs and BHQs, and upgradation of existing SWAN Network Operation Centre (NOC) have already been completed. All GP offices have been installed with VC facility.

[1] Governance and Development, World Bank, April 1992.
[2] Institutions as Fundamental Cause of Long-Run Growth, Daron Acemoglu, Simon Johnson, James Robinson, NBER Working paper series, May 2004.
[3] Kaufmann, D., A. Kraay, and P. Zoido-Lobatón (1999). 'Governance Matters'. World Bank Policy Research Working Paper 2196.
[4] Hall, R.E. and Jones, C.I. (1999) Why Do Some Countries Produce So Much More Output per Worker than Others Quarterly Journal of Economics, 114, 83-116.
[5] Hallerod, B., B. Rothstein, A. Daoud, and S. Nandy. 2013. Bad Governance and Poor Children: A Comparative Analysis of Government Efficiency and Severe Child Deprivation in 68 Low and Middle Income Countries. World Development 48: 19–31.

8.2.3 Odisha State Data Centre (OSDC): It was created to support a wide range of Government applications. Further, a new state-of-the-art SDC with Disaster Recovery Sites and Cloud Services is being established.

8.2.4 Cyber Security Operation Centre (CSOC): It has been set up to safeguard Odisha's ICT Infrastructure and e-governance applications. One of the key features of CSOC includes a Bug Bounty, which allows ethical hackers and researchers to access applications in a staging environment to identify security vulnerabilities and propose solutions. It helps in enhancing application security, enabling real-time threat hunting, threat awareness, and analytics. CSOC operates round the clock for all the days in a year, and closely monitors SDC, SWAN, Secretariat Network and other applications hosted in them.

8.2.5 BharatNet: Government of India has approved the establishment of the National Optical Fibre Network (NOFN) on October 25, 2011, later renamed BharatNet. It aims to provide broadband connectivity with ample bandwidth to 250,000 Gram Panchayats across the country by extending optical fiber networks to these locations. In the BharatNet Phase I, 3860 GPs across 181 blocks and 18 districts of Odisha were covered by BBNL using underground optical fibres and GPON technology. Under Phase II, 2932 GPs spanning across 133 blocks in 12 districts were covered with OPTCL acting as the State Implementing Agency. In this phase aerial optical fiber and GPON technology were used. The State Network Operations Centre (NOC) for Phase II has been operationalized within OCAC, with the E&IT Department acting as the nodal department for the project.

State Dashboard, a data and analytics-powered platform has been rolled out to streamline performance monitoring of government schemes thereby aiding data-driven decision-making.

8.2.6 IPv6 Implementation: IPv6 is the next generation internet protocol for Internet networking and builds upon the existing internet protocol IPv4. Compared to IPv4, IPv6 offers better addressing, security and other features to support larger networks. It also processes data packets more efficiently and reduces the size of routing tables. Therefore, the transition to IPv6 is considered critical to address future internet service needs and cybersecurity concerns. Three important IPv4 IT infrastructures namely- OSDC, OSWAN, and Odisha Secretariat Network (SEC-LAN) has been identified to implement IPv6. Currently, the implementation process has been completed for OSWAN while it is under process for the other two.

8.2.7 Telecom Infrastructure Facilitation and Management System (TIFMS): It has been launched by the E&IT department to facilitate the end-to-end management of telecom-related activities, including the setting-up of mobile towers, telegraph lines, and Optical Fiber Cables (OFC) along with timely approval requests by concerned stakeholders.

8.2.8 e-District: This initiative aims to streamline the online delivery of district-level citizen-centric services by automating workflow processes, digitizing back-end operations, integrating systems, and redesigning processes across various participating departments.

8.2.9 Odisha State Workflow Automation System (OSWAS): It is being used to automate functions at all levels of administrative hierarchy with an intent to ensure timely delivery of Government Services. The system has improved the efficiency and effectiveness of processes, enhanced employee productivity and facilitated efficient data management. It has been planned to implement OSWAS 3.0 to strengthen security features.

8.2.10 Integrated Financial Management System (IFMS): It is a custom-made IT-based system that consolidates essential financial management functions into a single software suite. Launched in 2015, IFMS Odisha serves as a unified and integrated platform for the state government's financial administration. Its key features include budgeting, payment processing, accounting, auditing, and reporting. The system aims to enhance debt and liability management, reduce transaction costs and time, and provide critical information for efficient decision-making. It has become an indispensable tool for financial administrators and officials in Odisha, streamlining processes and ensuring transparency in budgeting, accounting, and fund management.

8.2.11 Human Resource Management System (HRMS): It has been introduced to streamline service-related tasks of government employees. The HRMS includes modules such as the Annual Establishment Review, Training, Payroll System, Performance Appraisal Report (PAR), Online Leave, Loan and Advance processing, Leave Travel Concession, Increment, e-Service Book, automatic generation of Last Pay Certificate (LPC), Superannuation Projection Report, Transfer, Promotion, and Deputation. In addition, Digital Signature Certificate (DSC) and e-Sign were introduced to process Salary Bills and all types of Arrear Bills.

8.2.12 Integrated Recruitment Management System (IRMS): IRMS is being implemented by Odisha Staff Selection Commission and Odisha Subordinate Staff Selection Commission for streamlining recruitment process. IRMS aids in recruitment to various state and district cadre posts. It helps in making the recruitment process more accurate, transparent, and faster.

8.2.13 e-Pravesh: It is a web and mobile-based application designed to simplify and authenticate visitor entry to LokSeva Bhawan, Rajeev Bhawan, and Kharavela Bhawan. On its implementation, the process of issuance of periodical pass (Admission pass/Vehicle pass) has become transparent and paperless. This platform provides status updates, automated alerts, and enhanced efficiency of the entire process.

8.3 Efficient Delivery of Public Services

8.3.1 To ensure timely delivery of public services, Odisha has undertaken several initiatives including online delivery of services through Odisha One portal and enacting the right to services act. Odisha Right to Public Services Act (ORTPSA), 2012 aims to ensure the delivery of public services within a stipulated time. This legal provision enables citizens to demand public services as a right. Further, it also helps in meeting the growing demands of citizens, reducing corruption, and universalizing the delivery of public services. A dynamic dashboard, e-Appeal and e-Revision module have been developed for monitoring the delivery of notified public services. As many as 417 public services related to thirty-one departments have been notified under this act.

8.3.2 Odisha One Portal has been launched as One-Stop solution for delivery of public services. It is a unified Integrated Service Delivery Portal offering G2C services like issuance of birth and death certificates, payment of water and electricity bills, booking of OSRTC tickets, and applying for various schemes and services of government departments. It serves as a front-end interface for all e-governance applications of various departments. The portal has been successful in providing transparent G2C services

24/7. More than 186 services have already been integrated with OdishaOne with plans to integrate 400 additional G2C services in the future.

8.3.3 Common Service Centre: These centers established at GP and Ward levels ensure the provision of quality services to citizens at their doorsteps. Besides, they are also supporting the rural youth and WSHGs to become entrepreneurs. Odisha has set up a network of 9700+ common service centres till March 2024 and plans to increase them at least one in each GP and one for every 25000 people in urban areas. These centers are currently offering more than 172 services through Odisha One Portal in assisted mode.

8.3.4 Single Window Online Portal for Investment Approval (GO SWIFT): Towards ensuring hassle – free business environment for investors and ensure timely approval of the process, a single Window Portal viz. GO SWIFT has been developed. The portal has been facilitating online application submission, tracking and approvals for 54 industrial services from 18 State government Departments. GO SWIFT, provides end-to-end solutions for industries, which has been helpful in reducing delays in project approval period. Additionally, it also provides updates on latest rules, policy initiatives and reforms by the State for prospective investors. Moreover, all the applications of the Industries Department including GO PLUS, GO SMILE, GO CARE, Automated Post Allotment Application, and GO-iPAS have been integrated into GO SWIFT portal.

8.3.5 Krushak Odisha: Krushak Odisha database has been developed to bring transparency and efficiency in service delivery in agriculture and related sectors. This database of farmers includes small, marginal, and landless cultivators and agricultural labourers. The information of all farmers in the database such as residential details, land details, crops cultivated, livestock reared, and fisheries practiced have been verified by government extension workers. The unified database reduces the paperwork for the farmers and will enable them to access schemes and services within stipulated time. Krushak Odisha currently has data of about 80.3 lakh farmers.

8.3.6 Simplified Application for Agricultural Loans (SAFAL): It is a Common Credit Portal that serves as a comprehensive solution for farmers and agri-preneurs to obtain formal credit from a variety of financial institutions, including public sector banks, private sector banks, regional rural banks, Odisha State Cooperative Bank, and small finance banks. There are 500 plus loan products from 40 plus banks available on the portal. This helps credit seeking farm entrepreneurs and farmers to apply loans online, track progress, and receive updates on their application.

8.3.7 Go-SUGAM Portal: A single window platform for delivery of farmer centric schemes and services. All the farmer centric schemes from different government departments are onboarded on GO-SUGAM. It enables farmers to avail subsidies, and various other services like water supply, electricity connection etc. It encourages farmers to apply online for various schemes and facilitate them for online tracking of application.

GO SUGAM
Government of Odisha - Single Window
Unified Gateway for Agrarian Management

8.3.8 Paddy Procurement Automation System (P-PAS): P-PAS is a transformative initiative that leverages technology and data analytics to streamline the paddy procurement process in the State. The focus of the system is on authenticating genuine farmers, ensuring inclusion of small and marginal farmers, and weeding out the middlemen. This has streamlined and digitized the entire process from farmer registration to issuing id card to farmers, linkage with land record (Bhulekh), procurement, online token system, and payment to farmers directly in their bank account.

8.3.9 Social Protection Delivery Platform (SPDP): Technology improves transparency in monitoring government schemes and services to eliminate corruption. For social service delivery, Social Protection Delivery Platform (SPDP) was developed. It serves as a single platform for beneficiary registration. It enables citizens to check eligibility, enroll for schemes and monitor scheme benefits. Further, it also enables to monitor the well-being of beneficiaries of various schemes and weed out ineligible or ghost beneficiaries. Currently, it covers more than 24 schemes and citizen services.

8.3.10 Student Academic Management System (SAMS): It is an integrated portal facilitating e-admission into various colleges and universities and thereby benefiting student in Odisha. Till March 2024, 4500 colleges under this system enabling students to apply to any institution through a common application.

8.3.11 Online Hostel Management System: It allocates working women's hostels in different locations to support women in distress. A web enabled integrated rules-based system has been developed for management of these hostels and to facilitate the online booking of hostel accommodation. The backend system has a robust online allotment procedure, effective online payment management, grievance redressal mechanisms, and comprehensive reporting functionalities to meet the requirements of WCD departments, District Administration and Hostel Administration, etc.

8.4 Digitisation of Land

By making land information accessible online, Odisha is committed to promote transparency and reduces information asymmetry in land governance. Digital records of land information ensure authenticity, minimizing fraud, moreover illegal encroachment of government land.

8.4.1 Bhulekh Odisha: For efficient management of land governance, digitalisation of land is important. Therefore, Bhulekh was introduced by Government of India with the aim to maintain land records by the state governments. Bhulekh Odisha was introduced with the aim to maitain land ownership details, maintain digital records of land, mutation, land classification, taxation etc. Efforts to digitize and modernize land administration systems are essential for enhancing the efficiency and reliability of Bhulekh records, thereby fostering socio-economic development and inclusive growth across India.

8.5 Law and Order

Several digital initiatives have been taken to improve efficiency in law and order of the state. Odisha ensure rule of law in which legal processes are transparent, consistent, and fair. Following initiatives are aimed at improving efficiency in governance mechanism.

8.5.1 Litigation Management System (LMS): It ensures better management of court cases related to Hon'ble High Court of Odisha. LMS facilitates the digital entry of interim orders, final judgments, and contempt cases from the Hon'ble High Court for timely compliance. It enables seamless management of communication, scheduling of tasks, centralized access to data and faster access to legal research libraries. LMS 2.0 is an online application used for recording the information of legal cases thereby enabling end-to-end communication between government officials and advocates during various phases of a case.

8.5.2 Odisha Judicial Workflow Automation System (OJWAS): It is the customized version of Odisha State Workflow Automation System (OSWAS) for judiciary. It has been implemented in the High Court of Orissa and piloted in Cuttack district court. The system is now being used by 500 users from the judiciary. Rollout of the application to other district courts is in progress.

Odisha's cybercrime helpline number - 1930 has been made operational 24X7. The helpline was earlier operational only during office hours.

8.5.3 Paperless Courts: They have been introduced in both the Orissa High Court and the District Court complexes to ensure a transparent and speedy justice delivery system. They enable easier file storage and retrieval and instantaneous access to voluminous records to aid notes preparation during arguments. As on 31.03.2024, 16 Benches of Orissa High Court and 316 nos. of Sub-ordinate Courts are functioning in paperless mode.

8.5.4 Emergency Response Support System: It is an integrated mechanism designed to swiftly address emergency signals from citizens including voice calls, SMS, emails, panic SOS signals and others. It was launched to unify all the emergency services under a single number '112'. It operates 24x7 and allows for real time tracking of emergency response vehicles. As part of its implementation, existing emergency numbers such as Police (100), Fire (101), and Ambulance (108-102) are gradually being integrated into the unified 112 service.

8.5.5 Crime and Criminal Tracking Network and Systems (CCTNS): Odisha Police is implementing CCTNS, a mission mode project initiated by the Government of India. Under this project all police stations and higher police offices across the country are being computerized and networked. With an intent to provide better and quicker services, Odisha Police has launched the 'Citizen Portal' under CCTNS. It enables citizens to access information, request for police services, lodge complaints, obtain FIR copies and track the status of various services provided to citizens.

8.6 Citizen Feedback and Grievance Redressal

8.6.1 Jana Sunani: It is a Centralized Public Grievances Redressal and Monitoring System of Odisha launched in November 2021. It enables citizens to register grievances, lodge reminders or clarifications and access the status of their complaints in real-time. The registration of citizen grievances can be done through multiple mediums such as website chatbot, mobile application, WhatsApp chatbot, physical visit, letters, etc. A unique grievance ID is generated for each complaint which is then sent to the designated Nodal officer in each department. Till March 24, 6.27 lakh grievances registered, and 4.86 lakh grievances addressed.

8.6.2 Sanjog Helpline: Citizens can access this helpline through a toll-free number, 155335 to register complaints regarding schemes operated by the Odisha Government. It serves as a single window for citizens to register grievances and these are escalated to respective departments in a shorter time frame through SMS and mail.

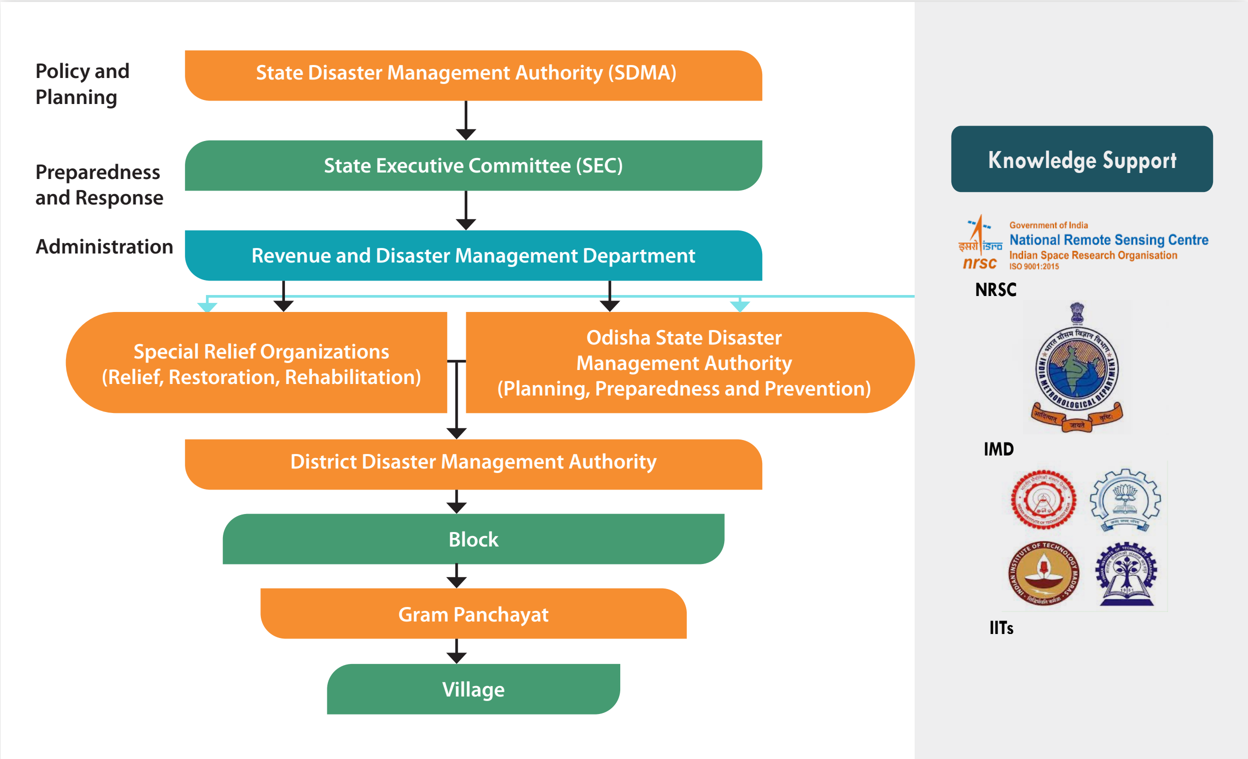
8.7 Disaster Management

8.7.1 Odisha is highly vulnerable to frequent natural disasters such as cyclones, floods and droughts. The State's strategic location on the eastern coast of India makes it one of the six most cyclone prone areas in the world (ADB, 2019)[6]. It is key to note that nearly one third of cyclones on India's eastern coast occur in Odisha. The western region of the State is prone to droughts. Further, close to 1.4 lakh hectares is prone to floods as there are ten major river systems across the State leading to floods at regular intervals. Odisha is also prone to earthquakes and tsunamis. Further, Lightning, Heat Waves, Tornado, Whirlwind, Heavy Rain, Boat Accidents, Drowning and Snakebite have been declared as State Specific Disasters since 2015. Several steps have been undertaken by the State to improve disaster management in the State. Odisha has achieved relative success in reducing damage to properties and reducing loss of lives during natural calamities through effective disaster management.

[1]Cyclone Fani: Damage, Loss and Needs Assessments, Asian Development Bank, May 2019.

8.7.2 Odisha has robust institutional mechanisms in place to manage disasters effectively. Odisha has set up dedicated institutions to implement various activities across the life cycle of disaster management including- mitigation, preparedness, response, relief and recovery. Some of the key measures include development of disaster resilient infrastructure; establishment of early warning dissemination systems, multi-purpose cyclone and flood shelters; involvement of communities in disaster management, preparation of disaster management plans at block, GP and village levels, etc. In addition, 20 ODRAF (Odisha Disaster Rapid Action Force) units are placed at 17 locations in 15 districts of the state to effectively coordinate response activities during a disaster. There is a Disaster Assistance Monitoring and Payment System (DAMPS) in place to facilitate early and hassle-free payment of ex-gratia to affected individuals. In addition, the State also frequently collaborates with various national and international agencies for knowledge exchange, capacity building and resource management. Furthermore, the State is also leveraging its focus on climate change through the formulation of Climate Change Action Plan and Climate Budget amongst others. Figure 8.1 shows the institutional mechanism for disaster management in Odisha. A few of these key institutions have been discussed subsequently.

Figure 8.1 | Institutional Mechanism for Disaster Management in Odisha



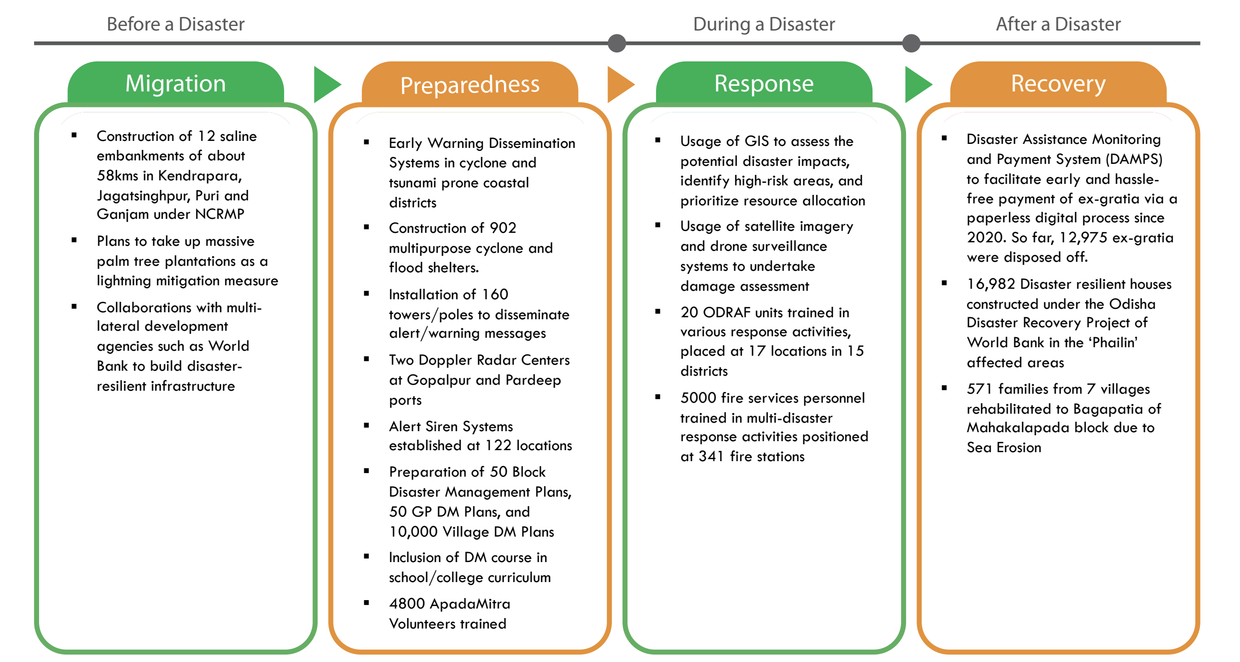
Source: State Disaster Management Plan 2023

8.7.3 Odisha was the first to establish a disaster management authority. It was established as a response to the death and toll caused by 1999 super cyclone. Odisha State Disaster Management Authority (OSDMA) is responsible for undertaking preparedness activities, enhancing capacity building in disaster resilience and crisis response. It has established a dedicated Geographic Information System (GIS) Cell, drought monitoring cell, State Institute for Disaster Management, integrated decision support system (SATARK—System for Accessing, Tracking and Alerting disaster Risk information based on dynamic Risk Knowledge web and mobile app) and total lightning detection systems among others. Recently, OSDMA has also set up a gender and inclusion cell to implement gender transformative strategies for disaster risk resilience.

Apart from this, Special Relief Organization is entrusted with the responsibility of coordinating with various departments for quick response relief and rescue operations.

8.7.4 Odisha has undertaken several measures to improve disaster mitigation, preparedness, response, relief, and recovery activities in the State. Some of the key initiatives across these phases have been highlighted below in Figure 8.2. Overall, Odisha's proactive initiatives across all phases of disaster management, alongside its strong institutional framework, have significantly improved its resilience against disasters. The state's continuous focus on disaster preparedness implies a readiness to confront future challenges effectively.

Figure 8.2 Key Measures undertaken by the State across various phases of disaster management



Source: Compiled from different Departments including Odisha State Disaster Management Authority (OSDMA), Government of Odisha

8.8 Conclusion

8.8.1 Odisha is committed to ensure implementation of people-centric governance reforms and timely implementation of projects and schemes. The Government has rolled out a suite of reforms to bring in positive changes across diverse areas such as public service delivery, law and order, resource management, agriculture, ease of doing business, human resource management, and social development amongst others. The increased adoption of information technology (IT) and IT-enabled services (ITES) have facilitated the generation of real-time data from various sources. Alongside these advancements, technologies like drones and satellite imagery now allow for data validation, enabling evidence-based policy formulation. Government records related to land, mapping, and resource utilization (including forests) can be verified and updated. However, despite these technological strides, direct interaction between administrative personnel and citizens remains crucial. Village-level workers, health professionals, teachers, and agricultural extension officers serve as the face of the government for ordinary people and possess valuable insights into ground realities. Their feedback informs policy development, enriching public initiatives.

8.8.2 Furthermore, Odisha is actively working to prevent new risks and reduce existing vulnerabilities related to disasters. This proactive approach contributes to building resilience and supports sustainable development. By integrating physical infrastructure restoration and societal systems, Odisha aims to revitalize livelihoods and enhance disaster response. The State aims to transition from reactive culture to a preventive one through effective governance initiatives, setting a benchmark for resilience in the country.

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